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MONTANA HIGHWAY PROGRAM

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Report to the 49th Legislature

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MONTANA HIGHWAY PROGRAM

**Report to
The Forty-Ninth Legislature**

**State of Montana
Ted Schwinden, Governor**

**Department of Highways
Gary J. Wicks, Director**

Helena, Montana

November, 1984

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I - INTRODUCTION

In the report to the 48th Legislature, the Department stated that the condition of Montana's highways was distressing. A total of 2,660 miles, or 50% of Montana's primary highways, needed reconstruction or repair; 40% of the state's bridges were substandard; and the interstate still had four major gaps to be closed before completion. The lack of federal and state construction funds in 1982 and 1983 resulted in further deterioration of the highways and significant unemployment in the construction industry. Because roads are a key element in the state's economic well-being, the deterioration of the state highway system has a significant negative impact on the state's ability to compete in national and international markets and to retain existing or attract new businesses to the state.

Highway deterioration is not unique to Montana. It is a phenomenon that is occurring in virtually every state in the union. A recent report by the Transportation Systems Center in Cambridge, Massachusetts stated that if the deterioration of the nation's highways is permitted to continue, the annual cost to the nation's economy by 1995 will include a 3.2 percent loss of Gross National Product, an 8 percent increase in the Consumer Price Index, a 5.9 percent decline in disposable income, a 2.2 percent decline in employment, and a 2.7 percent decline in labor productivity. Other studies dealing with the nation's failing and deteriorating infrastructure have documented similar distressing statistics.

The 1983 Legislature clearly recognized the problem and approved a watershed highway program for Montana. The legislature, by acting favorably on various proposals from the Schwinden administration and recommendations from the Governor's Council on Management, Governor's Transportation Advisory Council, a Joint Subcommittee on Highways, and a legislative audit report provided the Department with some of the necessary tools to begin

the task of reversing the deterioration of Montana's roadways.

The following sections of this report to the 49th Legislature highlight the actions taken by the last legislature and the Department to turn the process around and to significantly change Montana's highway program.

This report provides the reader with a brief analysis of the present situation regarding Montana's highways, program administration and finances, a status report of what will be accomplished during the current biennium, and a general discussion and status of Montana's highway needs as identified in 1983. The last section of the report presents the Department's and the Highway Commission's 1986-87 highway construction program.

Presented here is a program designed to continue the substantial progress made during the biennium. While the current biennium has been successful, the changes that were initiated in the last four years are still being put into place and will not be fully operational until the various management systems, the Reconstruction Trust Fund program, and other elements are complete.

These comments also reflect the continuation of a fundamental policy change for the highway program begun in 1981; priorities have been placed on pavement preservation to extend the life of the existing highways, and only the most critically deficient miles are being reconstructed.

This report reflects the activities undertaken in the first two years of a ten-year program. To highlight some of the major activities underway during the current biennium, the Department let \$177 million in contracts during fiscal 1984 and expects to let another \$153 million in fiscal 1985, as compared to \$90 million in fiscal 1983; has completed or put under contract 70 miles of the 74 miles of interstate remaining to be completed as reported in the 48th report; has completed or put under contract 70 miles of the 458 critically deficient miles identified previously; and, during fiscal 1984, met the schedule for 91% of all projects. The energy

and momentum being generated at present will be carried into the future. However, the program is not static. Modifications, changing conditions and unforeseen problems will always occur. The Department is always searching for better ways to meet the program goals in a more efficient and cost-effective manner. Several proposals are included in this report that would aid the Department in meeting its goals. These proposals will be presented to the 49th Legislature for review, discussion and decision.

While certainly more positive than the 48th report, this information does not mean to imply that Montana's highway problems are solved. First of all, there remains a great deal of uncertainty about future federal funding. There are efforts in each session of Congress to revise various formulas which effect the distribution of federal highway funds to the states, and which adversely affect Montana's share of these funds. Additionally, during the recently completed Second Session of the 98th Congress, the 1984 Highway Act, which would have provided interstate authority for the last half of federal fiscal 1984 and all of federal fiscal 1985 failed to pass. The failure to pass the Interstate Cost Estimate (ICE) may require the Department to delay the scheduled lettings of interstate contracts during this biennium until federal funding is secured.

Even if the higher level of federal funding continues into the future, the Department will not be able to meet every demand. Given the current funding situation facing the primary, secondary and urban systems and because of the five to seven years needed to design and complete projects, many long-awaited and necessary projects will still have to be delayed. In the foreseeable future the Department and Highway Commission will still have to say no more often than yes to requests for needed highway improvements. However, as this report clearly indicates, the Department and Commission are now in a much better position than two years ago and are delivering a significantly better highway program to the citizens of Montana.

II - MONTANA'S HIGHWAYS

There are approximately 78,000 miles of highways and roads in Montana. Of this amount, 11,740 miles are part of the federal-aid system. An additional 1,065 miles of "off-system" roads are not eligible for federal-aid funding but are the responsibility of the state. A breakdown of this mileage is shown in the following table:

Table 1
Federal-Aid System
Mileage

Interstate	1,194 mi.
Primary	5,471 mi.
Secondary	4,715 mi.
Urban	360 mi.
Sub-Total:	11,740 mi.

Non-Federal-Aid System

State Roads	1,065 mi.
Total:	12,805 mi.

The highways and related facilities and structures that make up the federal-aid system qualify for various levels of assistance from the more than thirty categorical programs administered by the federal government. The various components of the federal-aid system are as follows:

Interstate

The Interstate System was authorized by the Federal-Aid Highway Act of 1956 to develop a national network of safe, four-lane high-quality roads to facilitate commerce, personal mobility, and national defense. In Montana, the system was designed to ultimately consist of 1,194 miles of highway and the original completion date was scheduled for 1971. Federal funds are available for construction and for "4R" activities, which include resurfacing, restoration, rehabilitation and reconstruction. In addition, engineering and other related costs are allowable. Priorities are established by the Montana Highway Commission. Federal interstate funds are currently matched at a ratio of 91.21 percent federal to 8.79 percent state. Maintenance is wholly the responsibility of the state.

Primary

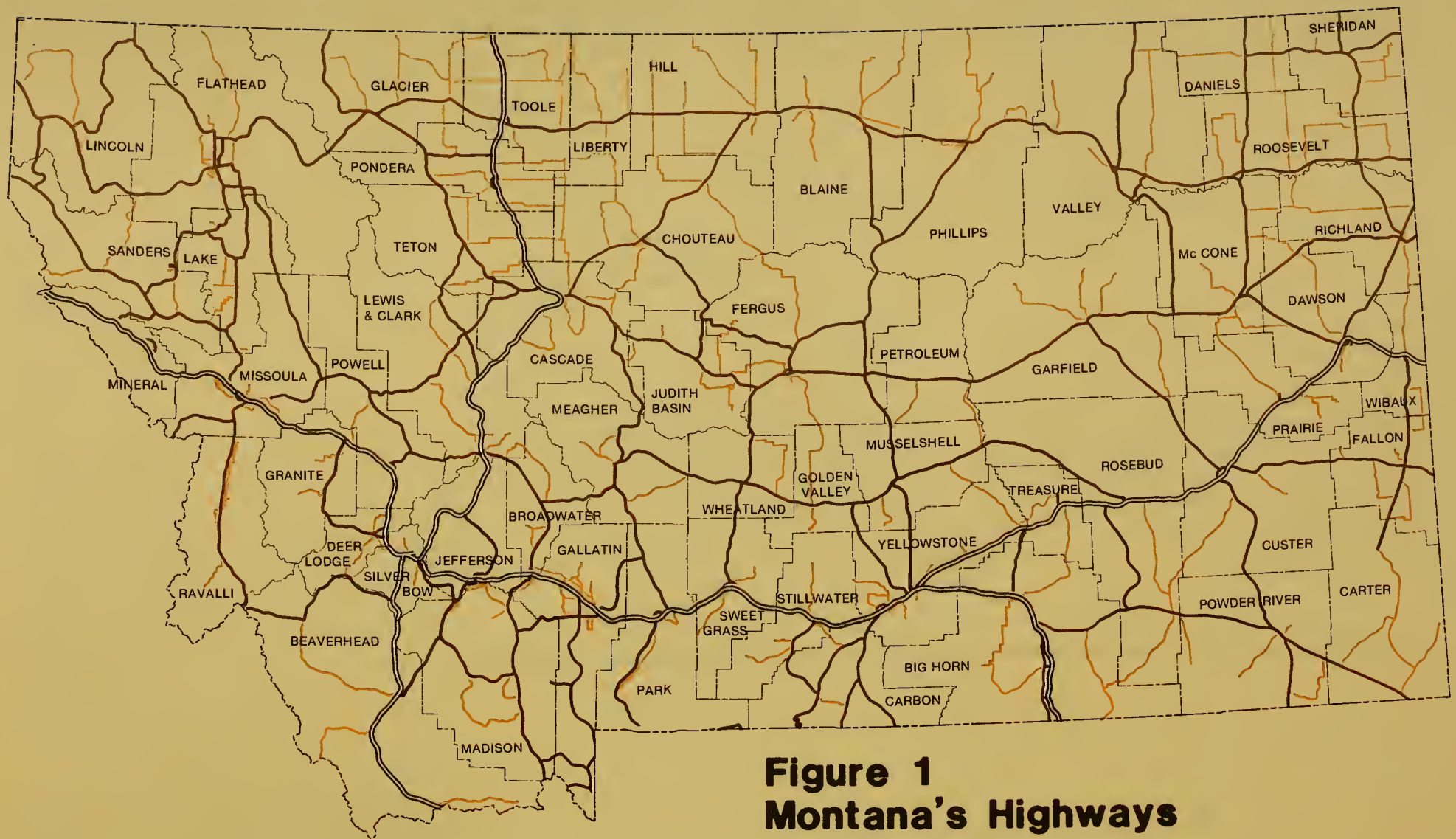
The Primary System in Montana is the main trunk highway network which is designed to connect the major urban and economic centers. It is designed to serve an economic purpose, i.e., expedite the movement of goods between market centers. The primary system in Montana consists of 5,471 miles of highway. Federal funds may be used for construction, reconstruction, various approaches to resurfacing and rehabilitation, and for related engineering costs. The current federal matching share is 78.35 percent, while the state share is 21.65 percent. The Montana Highway Commission sets construction and reconstruction priorities.

Secondary

The Secondary System was authorized in 1944, and qualifies for federal funds for construction and resurfacing. Priorities for construction and reconstruction are set by individual counties, while maintenance is almost entirely the responsibility of the individual counties. The secondary road system in Montana consists of 4,715 miles of road, 2,554 miles of which are paved. The secondary system was originally conceived as a collector system - a means of facilitating the movement of goods from farm to market. While it serves that purpose, it also acts as a collector system for commuters and other similar kinds of transportation activities. The current federal matching share is 78.35 percent while the state share is 21.65 percent.

Urban

The Urban System consists of those sections of urban collectors or arterials located in urban areas and includes 360 miles. A planning process that is conducted at the local level establishes construction and reconstruction priorities. The urban mileage in Montana is located in 15 cities which have an urban area population of over 5,000. The current federal matching share is 78.35 percent, while the state share is 21.65 percent.



Bridges

The bridges on the federal-aid system can be constructed with regular federal-aid highway construction funds, but bridges that are considered seriously deficient are also eligible for replacement or rehabilitation with separate bridge replacement funds. There are a total of 4,778 bridges in Montana of which 2,272 are major bridges over 20' long. The Montana Highway Commission establishes priorities. The current federal matching share is 80 percent, while the state share is 20 percent.

Other Federal Programs

There are various other categorical programs that qualify for federal assistance, including safety-hazard elimination, railway crossing hazard elimination, forest highways, etc. These programs are provided for in the Federal Highway Act and funds are specifically earmarked for the construction, reconstruction, and rehabilitation of the facilities, structures, and roadways involved in these various programs.

State Roads

There are 1,065 miles of state roads which are not on any federal-aid system, and which must be maintained and rebuilt with 100 percent state funding. The total includes approximately 982 miles of roads within interstate corridors located as follows: 571 miles adjacent and parallel to the interstate; 271 miles within one mile of the interstate; and 140 miles over one mile away but within the interstate corridor. Old US 87 - Billings to Hardin and old US 10 - Billings Heights to Pompeys Pillar are two examples of the latter category. The 982 miles plus 83 miles of various other roads are the responsibility of the Department under sections 60-5-108 and 60-2-203, MCA, and result primarily from the construction and completion of the interstate system. As the interstate system was completed over time, these roads became frontage or were placed into some other off-system category. The current status of these roads is discussed in the chapter on Highway Needs.

III - HIGHWAY USE

Highway use and finance are closely related subjects since the financing for Montana's highways comes primarily from user fees such as fuel taxes and Gross Vehicle Weight fees. Historically, highway revenues rose steadily as highway use increased. The trend toward more fuel-efficient vehicles interrupted this pattern, allowing vehicle miles traveled to outpace user revenues.

A less widely recognized trend is the growth in the percentage of trucks in the total vehicle stream. The larger trucks are the most rapidly growing component of the truck segment. This shift to heavier trucks means that the highway pavements are being subjected to more traffic loading than in the past.

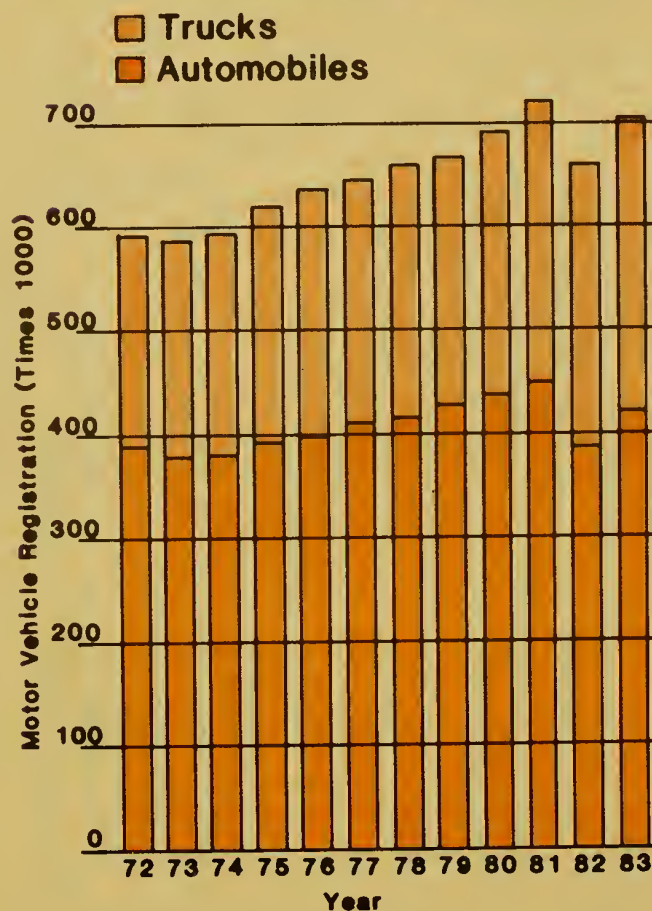
Vehicle Registration

Registration of automobiles climbed steadily from 1972 to 1981. However, records from the Montana Motor Vehicle Registrar's Office show an interruption to this trend occurring in 1982 - about an 8 percent decrease in total registration from 1981. This decrease is primarily due to a decline in automobile sales attributable to the economic recession experienced during this period. Records for 1983 show vehicle registration is on the upward swing again reaching almost the same level as reported for 1981.

The total number of automobiles and trucks was 703,843 in 1983 compared to a total of 593,972 in 1972 - a 19 percent overall increase. During this time period Montana's population increased by approximately 13 percent.

A history of vehicle registration in Montana from 1972 to 1983 is shown in Figure 2. The years 1976, 1977, and 1978 are estimates due to a changeover to a staggered registration system and automated record keeping during this period.

Figure 2
Motor Vehicle Registration

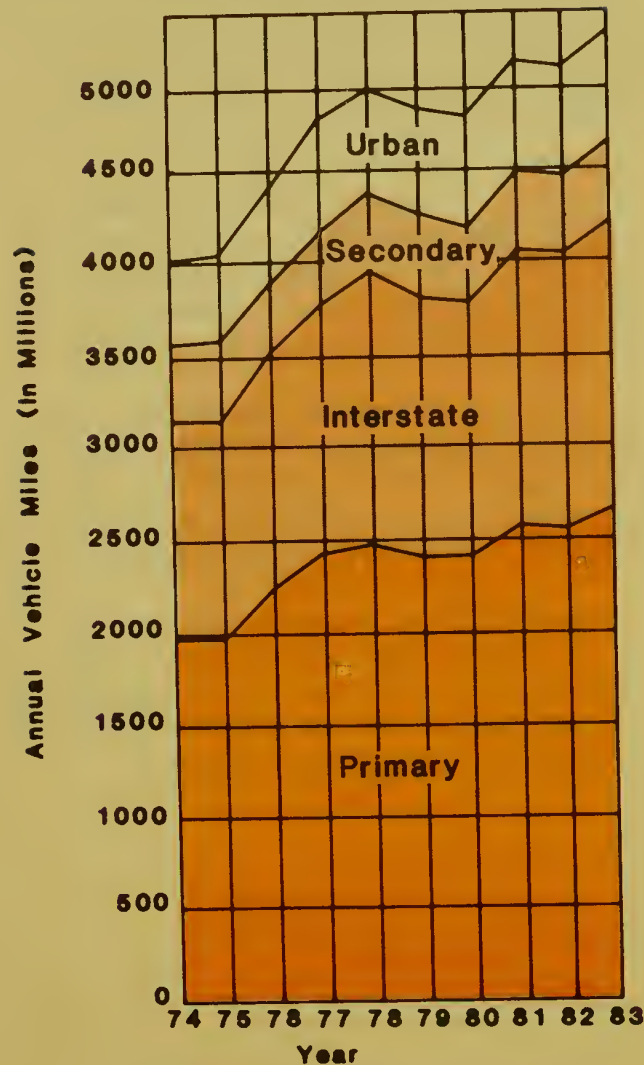


Vehicle Miles of Travel

Travel on Montana's highways has also been steadily gaining except for those years where fuel shortages and higher prices or economic conditions have caused short-term declines. Travel volumes on the federal-aid system are about 33 percent higher than they were ten years ago, but the number of miles on system has remained relatively constant over the same period. These statistics illustrate that while the federal-aid system mileage in Montana has remained almost constant, the use of these roads has increased and will continue to increase in the future. This is partially due to the increased population and number of vehicles in Montana, but also is a result of changing pattern in air carrier service and declines in rail service.

As Figure 3 illustrates, the largest volume of on-system vehicle miles traveled has consistently occurred on the primary system, followed by the interstate system. The greatest increase in miles traveled since 1974 has also occurred on the primary system, with the interstate system again a close second. Total vehicle miles traveled on the urban and secondary systems combined equals only 21 percent of the total miles traveled on the federal-aid systems.

Figure 3
Vehicle Miles of Travel
on Federal-aid Systems



Traffic Flow Patterns

Use of Montana's primary and interstate highways can be even better understood by examining the traffic flow map included as Figure 4. The black band represents commercial traffic flow comprising all commercial trucks and buses. Since the 48th legislative report, various parts of Montana have experienced slight increases in commercial traffic. Examples of this are in the Kalispell area on US 93, MT 39 to Colstrip and US 212 in southeastern Montana. These increases are attributed to improved economic conditions and increased activity in the distribution of goods in Montana.

The interstate routes serve substantial volumes of long-distance traffic. However, there are a number of instances where primary system traffic near larger cities or in the U.S. 93 corridor exceeds traffic on major interstate segments.

Other Transportation Modes

The decline in the availability and level of service for other modes of transportation in recent years, particularly rail service, has increased the already dominant role of highways as the primary means of transportation in Montana.

Rail

With the demise of the Milwaukee Railroad in 1980, Montana continues to undergo tremendous changes in its available rail system. The current trend in rail freight operations is to improve the efficiency of rail shipping by combining freight loads into unit trains. While unit trains are more efficient and result in lower freight rates for larger shippers, the system is accelerating the abandonment of branch lines, thereby isolating some shippers. Since 1979 the Burl-

ington Northern has abandoned 13 rail lines consisting of 343.8 route miles as shown in Table 2. As the BN continues to streamline its operation to that of a main line railroad, indications are that the BN will continue to seek abandonment of branch lines.

Table 2
Railroad Route Miles
in Montana

	1979	1984	NET ABANDONED
BN	3385.4	3178.8*	343.8
Milwaukee	1066.6	-0-	850.8**
SDRA/BN***	-0-	78.6	-0-
UP	133.3	133.3	-0-
SOO Line	56.9	56.9	-0-
BA&P	31.9	31.9	-0-
WSS&YPR	22.9	-0-	22.9
Total	4697.0	3479.5	1217.5

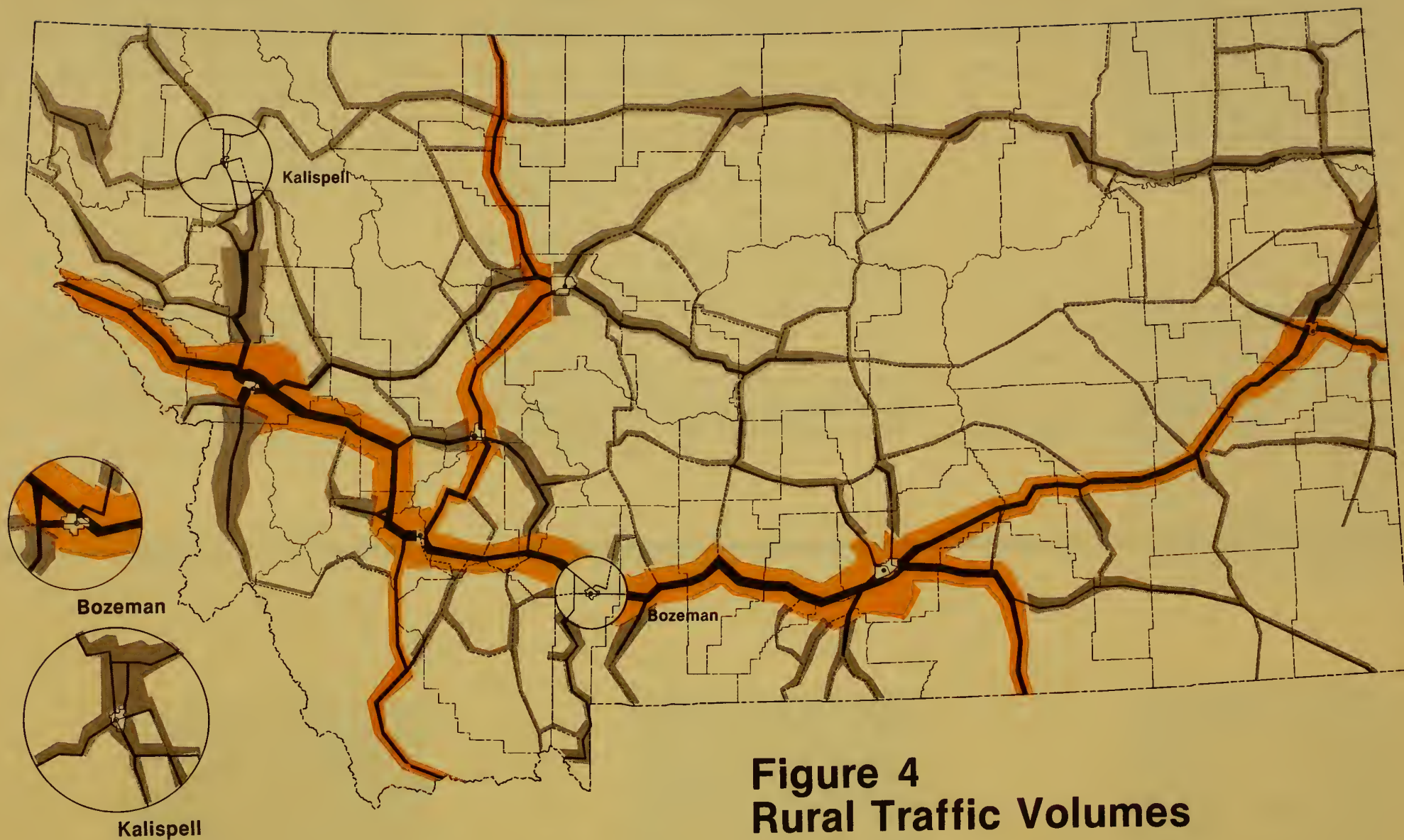
Source: Transportation Bureau,
Montana Department of Commerce

* Indicates 137.2 miles purchased from Milwaukee RR

** This figure reflects the 215.8 miles purchased by BN

*** Former Milwaukee line purchased by BN and turned over to the South Dakota Rail Authority

In response to mounting concern resulting from an increasing number of railroad abandonments, the 48th Legislature passed legislation (HB 815) which directs the Department of Commerce to assess the acquisition potential of branch lines that are or may be abandoned. Those lines that are acquired may be turned over to a local authority or shortline operator for operation or may be rail banked (i.e., held in trust for future transportation purposes). The Department of Com-



merce will present its findings and will make recommendations regarding the acquisition of rail lines to the 49th Legislature.

There are presently 3479.5 railroad route miles in Montana and the BN operates over 92 percent of the trackage. Trackage is also operated by Butte-Anaconda and Pacific, Soo Line, and Union Pacific railroads.

The only present alternative for commodities previously shipped by rail is by truck on the highway system.

Air

Montana is served by 122 public airports (70 have paved runways) of which 8 have major airline service and 7 are served by commuter airlines. Cities having major airline service include Billings, Great Falls, Missoula, Helena, Butte, Bozeman, Kalispell, and West Yellowstone. Cities having commuter airline service are Havre, Glendive, Miles City,

Lewistown, Glasgow, Sidney, and Wolf Point. Major air carriers in Montana are Northwest, Frontier, Western, and United Airlines. Com-muter airlines are Big Sky and Cascade.

In 1978 the airline industry was deregulated, and has been in a state of flux since that time. Changes in schedules and rates have been frequent, and service has been erratic as a result. However, in the judgment of the Montana Aeronautics Commission, there is more frequent service since deregulation, particularly in those areas that are served by commuter airlines.

Poor economic conditions in 1980 and 1981 drastically reduced the number of enplanements at major Montana air carrier airports. The peak year for enplanements was 1979 with a total of 858,583, which declined to 687,684 in 1981 - a 20 percent decrease. After 1981, records show enplanements on the increase again with 772,124 recorded for 1982 and 856,319 for 1983. These healthy in-

creases occurring since 1981 have air transportation in Montana now operating almost at the peak year (1979) level again.

Although aviation is an important part of Montana's overall transportation system, there are no changes foreseeable in the future of the aviation industry that would have a significant impact on Montana's highways. The decline in enplanements from the 1979 peak year has likely resulted in a minor increase in highway traffic, but probably not to the extent that a measurable impact has occurred.

Conclusion

All of the indicators show that the use of Montana's highways increases each year and should continue to increase into the foreseeable future. This fact will likely be compounded by conditions in the airline and rail industries in the state.

IV - HIGHWAY ADMINISTRATION

Highway programs are administered by the Montana Department of Highways in conjunction with the Montana Highway Commission. The Montana Highway Commission designates the federal-aid highway system and provides advice and counsel to the Department. The Department of Highways has the responsibility to construct, maintain, and protect the highway system.

Montana Highway Commission

The Montana Highway Commission consists of a board of five members appointed by the Governor from five separate commissioner districts. The Commission is required by law to meet at least once each month to conduct business. Highway Commission meetings are held in various cities in Montana and are open to the public. The 48th Legislature significantly expanded the Commission's authority in project selection and

prioritization, and in determining sufficiency levels for the distribution of the federal-aid funds for the primary system.

The principal responsibilities of the Highway Commission are:

- Approving highway projects and bid lettings;
- Awarding all contracts on federal-aid and state highways;
- Designating and abandoning federal-aid and state highways;
- Establishing speed zones on highways;
- Controlling or limiting access to highways;
- Adopting rules and hearing appeals regarding outdoor advertising on interstate and primary highways;
- Selecting, designating and establishing priorities on construction projects;
- Designating levels of adequate and critical sufficiencies for distribution of funds for the federal-aid primary system.



Maria N. Murray



Paul Foster

HIGHWAY COMMISSION MEMBERS

District	Member	Residence	Term Expires
1	Roy Duff	Whitefish	1987
2	Maria N. Murray	Butte	1985
3	Ivert Hellebust, Chairman	Havre	1985
4	Gerald Archambeault, Vice-Chairman	Glasgow	1987
5	Paul Foster	Billings	1985



Ivert Hellebust, Chairman



Gerald Archambeault, Vice-Chairman



Roy Duff

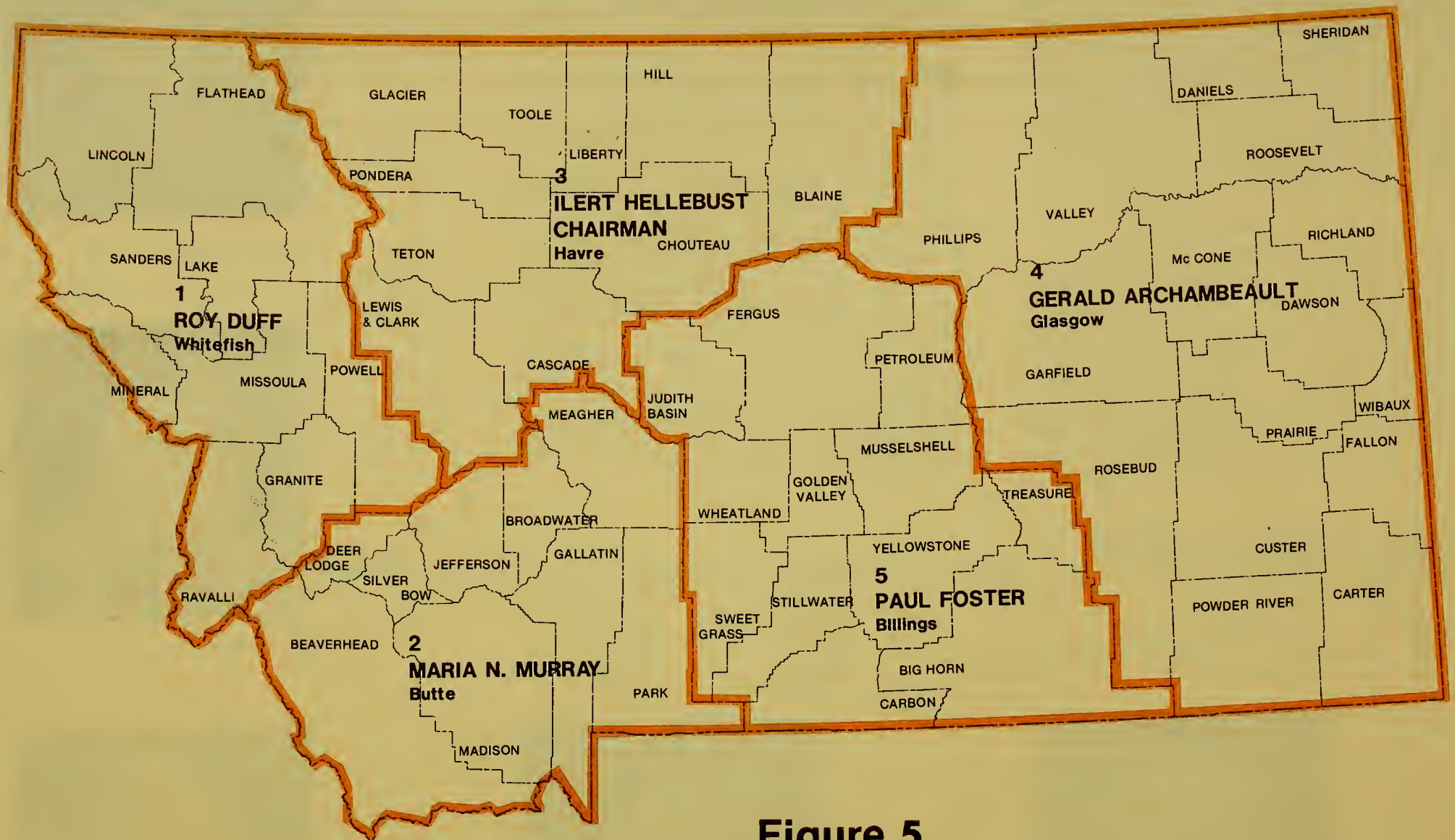


Figure 5
Highway Commissioner Districts

— Commissioner District Boundaries
3 Commissioner District Numbers

Montana Department Of Highways

The Montana Department of Highways, under the administration of a Director appointed directly by the Governor, is responsible for the day-to-day administration, maintenance, construction and protection of Montana's highways and all other responsibilities not expressly delegated by statute to the Highway Commission. The principal duties of the Department are:

- Planning, design, construction, reconstruction and maintenance of highways under the Department's jurisdiction.
- Apportionment of construction funds to the various highway systems other than the primary system.
- Acquisition of property necessary for highway construction.
- Administration of the provisions of the Outdoor Advertising Act.
- Administration and control of the gross vehicle weight of vehicles operating on highways under the jurisdiction of the Department.

The Department maintains the interstate and primary systems, and those secondary roads that are under a maintenance agreement between the county in which they are located and the State; other secondary roads are maintained by the jurisdiction in which they are located. The Department also maintains certain urban routes. The Department's maintenance program is 100 percent state funded.

Staffing

At the beginning of Fiscal Year 1985, the Department had a total of 1,972 full-time equivalent positions authorized, of which 580 were located in the Helena headquarters offices and 1,392 in the field under the jurisdiction of the district offices in Missoula, Butte, Great Falls, Glendive and Billings.

Table 3
Highway Department Positions
by Function

Function	No. of Positions
Program Development	53
Engineering	338*
Centralized Services	100
Legal	8
Personnel	13
Gross Vehicle Weight	103
Maintenance	53
Missoula District	299
Butte District	316
Great Falls District	220
Glendive District	231
Billings District	238
Total:	1,972

* Included in the 338 Engineering Division staffing are 11 core drill FTE which are assigned to the field, but are administratively assigned to Helena headquarters.

In the report to the 48th Legislature, the Department reported that 595 FTE, or 34% of the 1,759 authorized FTE in 1983, were assigned to Helena headquarters. The Department's effort to minimize headquarters' staffing and assign FTE to the field activities can be seen in Table 3 above. The 580 FTE assigned to headquarters represents 29% of the total authorized FTE for 1985, an overall reduction of 5%.

The final steps in the centralization of the right-of-way function during fiscal 1986 will not significantly affect this trend.

The responsibilities of each function listed above and shown in the organization chart on the opposite page are listed as follows:

Program Development

This division programs all major construc-

tion and reconstruction projects for the Department, manages the federal assistance program, coordinates pavement management and safety project activities, and carries out planning and data analysis including needs assessment, sufficiency studies, and traffic analysis.

Engineering

The Engineering Division designs roads and bridges. To do this, all preconstruction activities including road design, right-of-way acquisition, environmental impact assessments, public hearings, and many other details are accomplished by the division staff and engineers.

The Engineering Division also manages the process of letting the projects to bid. After the Highway Commission awards projects to the successful bidders, the Engineering Division administers the contracts, tests and analyzes construction materials, reviews the field districts' project management function regarding contractor performance, and, in conjunction with the District offices, inspects the work for compliance with specifications. The division also develops and promulgates policies on engineering, construction, specifications, bid and contract letting, and other areas of engineering and design activities.

Centralized Services

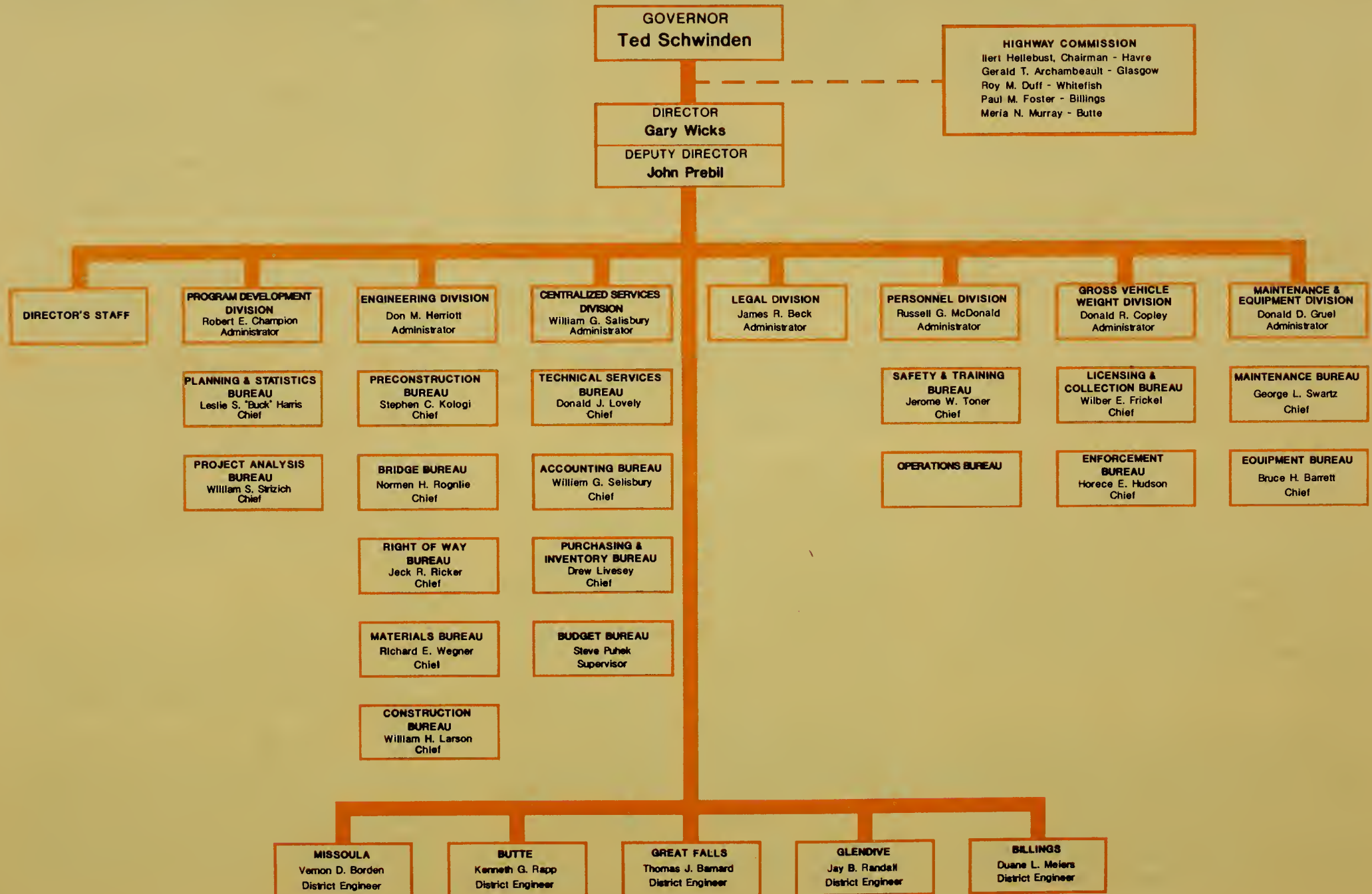
Centralized Services provides budgeting, accounting, data processing, word processing, printing, purchasing, inventory control and photo support to Department divisions.

Legal

The Legal Division provides legal counsel and support to the Department and Commission in carrying out statutory duties and responsibilities, and provides legal support to the right-of-way program for land acquisition for construction and reconstruction projects.

Figure 6

Highway Department Organization Chart



Personnel

This division provides support and assistance to Department divisions in recruiting new employees, coordinates the Department's employee performance appraisal program, negotiates labor contracts, develops personnel policies and procedures, and provides advice and assistance to program managers in interpreting and enforcing personnel policies and procedures. This division also manages the Department's safety promotion and employee training programs.

Gross Vehicle Weight

This division enforces truck weight and dimension laws and regulations, issues special permits and licenses, as required, and collects fees and fines.

Maintenance and Equipment

This division programs all major and routine road maintenance and snow removal activities and projects, evaluates field performance in carrying out maintenance activities, and manages the Department's equipment and motor pool fleet.

This division also develops and promulgates policies on all maintenance activities, such as snow plowing, striping, minor seal and cover, and rest area maintenance.

District Offices

The five field district engineering offices supervise and administer construction, reconstruction, maintenance and contracted maintenance projects in their respective districts, perform routine roadway design activities, review construction plans, and represent the Department in dealing with local officials and residents.

Under the Department's reorganization in 1981, the five engineers have been delegated the authority and responsibility to directly

supervise all highway-related activities within their respective geographic areas.

Highway Program Management

Since 1981 various executive and legislative actions have had a significant impact on the management of the present highway program. Additionally, the constantly changing federal funding levels and priorities have required a high degree of flexibility from managers and designers.

The 48th Legislature addressed Montana's highway needs in a variety of ways: restructured the financial districts from a total of twelve to five and revised the formula for state funds apportionment for more effective utilization of existing funds; increased the gasoline and diesel fuel taxes to match increased federal funds; established a ten-year Reconstruction Trust Fund and provided additional funding to address the needs of the state's deteriorating primary system; provided the Department with bonding authority for the purpose of advancing the closing of the interstate gaps and to significantly increase the number of highway projects to be constructed under the Build Montana program; and, mandated and provided the appropriations for the purpose of developing and implementing a number of management systems to enable the Department and the legislature to better allocate resources and improve management.

Since 1981, the Department has undergone an extensive internal reorganization including the creation of five field districts to generally parallel the legislatively restructured financial districts and the five Montana Highway Commission Districts; decentralized the management and administrative control of field operations; implemented various cost-saving measures including staff reductions; and, developed and implemented numerous management systems that will be

operational by the end of the current bienium and will be utilized in the 1988-89 bienium budgeting process.

On the federal side, after significant decreases in funding during fiscal year 1982, federal funding increased as a result of additional fuel taxes at the national level, and the receipt by the Department of discretionary funding during fiscal 1984 from the Federal Highway Administration.

All of the above have affected the Department's current program. The Department is presently gaining experience with the reorganized structure, and is gathering and entering data into the new management systems to test the operation of these systems. The actions taken are achieving positive results. The Department intends to maintain the present operational and organizational structure to manage the relatively high level of construction activity over the next bienium. However, the Department's efforts to reduce costs and provide more effective and efficient management of its programs will continue.

Cost Savings

Reorganization - As a result of an internal organization study, the Department began an extensive reorganization in 1981. This process is still underway, with the centralization of the right-of-way function scheduled for fiscal 1986. The reorganization has included the creation of five field district offices which has improved responsiveness and accountability at the local level, improved communications between the field and headquarters resulting in reduced response time to problems and issues, increased accountability, management and budget controls, and resulted in cost savings due to significant staff reductions. For example, the Fiscal 1981 authorized FTE level was 2306, 376 more than was authorized for fiscal 1984.

The amount of contract awards was \$177 million in fiscal 1984, as compared to \$67.4 million in fiscal 1981. The Department is clearly conducting more construction activity in 1984 than in 1981 with 376 fewer FTE.

Reorganization has also resulted in more effective administration. As an example, the creation of district centralized services supervisory positions, combined with the implementation of management systems and improved training, has resulted in a significant reduction of accounting errors in the field. This has occurred despite the fact that the Department eliminated 11 administrative FTE in the field.

Value Engineering - This process is a systematic and structured application of engineering techniques to determine what cost-saving measures can be adopted to produce more mileage for the existing highway dollar.

The Department has applied value engineering concepts in two ways; contractor initiated and as part of the internal design process. Value engineering can not be used on every project. Department engineers apply value engineering when there are indications that it is applicable and will provide for the intended function of the project. For example, the Department has experienced savings of approximately \$2 million on the Two Medicine Bridge on Highway 2, and expects to save approximately \$1.4 million on projects south of Scobey on Highway 13. The most notable result of value engineering is on the Lodge Grass-South I-90 project where the Department expects to save approximately \$10 million due to the use of a foam mix base.

Contractor initiated efforts on selected projects have also resulted in savings to the state of \$112,000 as of January, 1984.

Energy Audits - An additional major cost-saving effort is presently underway in the

area of energy consumption. The Department has trained existing staff to conduct energy audits of the approximately 650 department-owned facilities, and will begin to retrofit those facilities after the energy audit results are analyzed. The Department spent approximately \$1.4 million in fiscal 1984 to heat and light its facilities.

The Department's goal is to reduce its energy consumption by 15% by the end of fiscal 1989, and provide a more efficient working environment for the Department's field employees.

Management Systems

The Department has completed most of the development and implementation of the various management systems mandated by the 47th Legislature, and expects to have those systems fully operational by July 1, 1985.

Positive results are already being achieved by the implementation of the various systems. The Pavement, Preconstruction and Construction Management Systems were utilized to generate portions of the 1986-87 biennium budget request and provide data for the 1986-87 project selections, and the Equipment Management System will be utilized to schedule equipment replacement during the next biennium. The Construction Management System has enabled the Department to set the permanent construction FTE at a reduced level. The Project Selection System, as discussed at the end of this report, has provided the Department with a systematic and documented method as a basis for project selection. The systems, while being utilized at present, will not reach their full effectiveness until sufficient data is captured over a period of time to ensure reliability for decision-making and budgeting purposes.

An additional major operations system is

proposed for the 1986-87 biennium which would provide future savings in manpower. This system is the Computer Aided Design and Drafting System (CADD), which is presently operational in 25 other states, including Oregon, Idaho, North Dakota and Washington. As named, the system provides interactive computer assistance in the design and drafting of roads and bridges. It will enable the Department to reduce design and drafting manpower and improve the quality of the project plans.

Human Resources Management - Consolidated Manpower Program

Unlike other departments of Montana state government, the Department of Highways is subject to certain restrictions regarding the utilization of FTE within the Department.

The 48th Legislature provided some flexibility in the use of personal services funds, but restricted the Department in this area by further stating "this is not to be construed as permitting the transfer of full-time equivalent employees between programs..." At present, because of these restrictions, the Department manages and budgets for its human resources by program.

Given the seasonal nature of the construction and maintenance activities which create seasonal peaks and valleys in manpower allocations, the Department believes that the present restrictive method of managing manpower by program is inefficient. The Department will submit a proposal to the 49th Legislature for a Consolidated Manpower Program to maximize the use of the existing FTE authorization, and minimize the need for additional FTE during periods of expanding work loads and activities.

Reduced Federal-Aid Non-Agreement and Overrun Projects

In 1983 the Department made the commit-

ment to maintain the Non-Agreement and Overrun status below the \$1 million level. These types of projects have typically tied up significant amounts of funds over periods of time that could have otherwise been invested. During fiscal years 1983 and 1984, the Department has met this goal and has averaged \$656,000 monthly, 34 percent under the \$1 million goal. The Department will continue this effort.

Project Closeouts

The Department's efforts undertaken during the 1982-83 biennium to reduce the amounts of funds in non-completed status will continue. By closing out these types of projects within six months after the major work is completed, the project's excess obligation authority can be made available for new projects, resulting in better utilization of existing funding. During 1983 the Department set a goal of reducing the amount at that time of \$5.8 million by 50 percent. As of June, 1984, the total has been reduced to \$900,000.

Governor's Council on Management Study Recommendations

During 1982 the Governor created the Governor's Council on Management for the purpose of recommending methods and procedures to provide public services in a more cost-effective and efficient manner. That Council recommended 28 actions to the Department of Highways of which the Department accepted 18, modified 7, and determined that 3 were not feasible. As of June, 1983, the Department had implemented 22 recommendations and is continuing efforts on the remaining 3.

Some of the recommendations being implemented are the centralization of the right-of-way function, protective painting on bridges, increased inventory and purchasing

control, reduction of the equipment fleet, and a reorganization of centralized services functions.

Statewide Budgeting and Accounting (SBAS) Conversion

The Department began converting portions of its accounting system to the Statewide Budgeting and Accounting System (SBAS) during Fiscal 1983. The Department received an additional three FTE during the 48th Legislature to continue the process. The conversion project will take several years to complete. Presently, the Department has converted the Accounts Receivable and Revenue functions to SBAS.

The project personnel hired during February and March, 1984, are undergoing training in the present Highways' and SBAS systems. This phase of the project will continue through 1984, and the design phase will continue through 1985 before conversion of Highway expenditures to SBAS can take place. The major conversion will take place during 1986. The remaining subsystems, such as federal-aid and equipment rental, will be modified during 1987.

This latter effort will either require some modification to SBAS, or substitute the present information received from the Department's present accounting system with the data from the management systems being designed and implemented in the Department.

The end result of the conversion to SBAS will be the consolidation of accounting and financial information into one system rather than two, reduced data processing costs, and increased audit and analysis capabilities.

Management Assistance Reviews

A management assistance review process was implemented in the Department in 1983.

The purpose of the reviews is to provide the highway management personnel information about the effectiveness of the district office operations. The review group, made up of managers of the various functional programs at headquarters, conducts two types of reviews. The General Review evaluates the districts' efforts in the organizing, planning, communicating, directing and coordinating used in achieving program objectives. The Functional Review verifies the districts' compliance with rules, regulations, and policies in the areas of engineering, personnel, centralized services, maintenance and equipment.

The findings of the reviews are analyzed by headquarters and district staff, and appropriate actions are implemented to correct or resolve any weaknesses found.

Reviews have been conducted with the Missoula and Butte districts, and the remaining three districts are scheduled in the future. These reviews will continue routinely.

Performance Appraisal System

The Department implemented a formal performance appraisal system for the purpose of establishing work and activity criteria, improving accountability and performance, and internal standards. Two evaluation cycles have been completed.

The evaluations, in conjunction with other personnel records and information, form the basis for personnel actions including promotions, transfers, awards of merit, the outstanding performance award program, and disciplinary measures.

Financial Audit

The Office of the Legislative Auditor performed a financial/compliance audit of the Department for the fiscal year ending June 30, 1983. The objective of the audit was to: (1) determine if the financial statements

presented fairly the financial position and results of operations for the fiscal year; (2) determine compliance with applicable laws and legislation which could have a significant effect on the financial statements; and (3) make recommendations for improvements in the management and internal controls of the Department. The auditor issued an unqualified opinion on the Department's financial statements. .

This is a significant improvement from previous qualified opinions on the Department's financial statements. The report contained nine recommendations. The Department agreed with eight recommendations, and agreed in principle with the remaining recommendation. All of the eight recommendations have been implemented in the Department. Some of the recommendations were directed to the Department's policies and practices on obsolete and slow-moving inventory, inventory count and control, elimination of inventory not necessary to the Department, and use of the state's Central Stores program.

The Federal Highway Administration also performed an annual review of the Department's Federal-Aid Billing System in March

1984. The objective was to determine the degree of reliance placed upon the system and related internal controls to produce valid and proper claims supported by costs recorded in the state's accounting system. The review concluded that the billing system is acceptable, and recognized the improvements made in the accounting system since the previous review.

Quality Control

In 1982 the Department initiated a Quality Assurance (QA) program by inserting QA specifications in contracts with highway contractors. Those specifications require contractors to conduct their own product quality control. The Department conducts quality reviews by field laboratory testing on all construction projects to ensure that construction materials meet the specified standards. The field laboratory testing program is designed to aid in protecting the Department from less than standard construction practices and insufficient and below standard materials. The Department is increasing its field testing capability by acquiring Marshall test trailers which provide the ability to perform more testing and measuring of the

quality of materials and conduct additional tests that have not been possible in the past. The Department has also acquired a device that will measure smoothness and rideability of newly constructed or reconstructed roadway.

The Department has also initiated a quality incentive provision in selected contracts. These incentive clauses will benefit contractors (and the highway users) that make the extra effort to provide an above standard product. These incentive clauses are currently being used for contracts utilizing plant mix aggregate production and compaction.

The Department has taken major steps to strengthen and upgrade specifications dealing with the quality of road construction. For example, during 1984 the Department revised and implemented a series of temperature specifications dealing with when contractor vehicles could travel over newly paved roads, raised temperatures of mix during placement on the roadway, and limited pavement construction during cold weather periods based on a combination of temperature and calendar dates. Additionally, the Department upgraded its material specifications regarding plant mix in 1984.

V. MONTANA HIGHWAY PROGRAM FINANCES

Program Finances

The United States Congress, by passing the Surface Transportation Assistance Act of 1982, placed a significantly greater emphasis on the national highway system and the deteriorating and incomplete interstate system.

In particular, the Act significantly increased funding in the interstate preservation category by expanding the Interstate 4R formula funding program, and increasing the funds for bridge replacement and rehabilitation. Congress increased the motor fuel taxes at the national level to fund the expanded program. The Act also placed greater emphasis on the Disadvantaged Business Enterprise/Minority Business Enterprise (DBE/MBE) requirements.

Congress also included grandfather provisions which protect Montana's and fifteen other state's gross vehicle weight and size authorities that existed in 1956. Further, other provisions relating to "Buy America" (steel), mass transit, public transportation, planning organizations, and minimum allocations were addressed in the Act. However, because of the small population in Montana, these latter provisions in the Act have little effect on Montana's highway programs.

The major increases in both federal and state funding support, coupled with bond proceeds and discretionary federal funds, have permitted a dramatic increase in the volume of highway construction work contracted. While the increased federal support is needed and welcome, it is unfortunate that practically all of the increase is targeted at interstate rehabilitation and bridge replacement, and does very little to help interstate construction or the primary, secondary, or urban systems.

Allocating the Highway Dollar

Montana's highway funds derive from a variety of federal and state sources, with the method of distribution dependent on the source. Most of Montana's highway construction funds come from the federal government, while construction matching and maintenance funds are generated by the state. All maintenance costs are 100 percent state funded. Federal revenues flow to the state through the Federal Highway Administration (FHWA), an agency of the U.S. Department of Transportation. Each year the FHWA apportions federal highway funds to Montana for each of the various federally-aided systems or program categories; e.g., interstate, primary, bridge replacement, and safety.

Table 4 shows the 1982 and 1984 federal apportionment levels and highlights the significant dollar increases in Interstate 4R and the bridge program, and the relatively slight increases in primary and secondary.

The 1984 apportionments represent an increase of \$27.3 million, or 34.5% over 1982. Of the increased apportionments, the interstate and 4R category received \$10.6 million, or 39% of the new apportionments, while the interstate system miles represent only 10% of the total on-system miles. Conversely, the primary system received \$6.2 million, or 22.7% of the new apportionments, but represent 46.6% of the total miles. The secondary system received \$4.5 million, or only 16.5%, but represents 40% of the total miles. This disparity in funding depicts the continuing problem the state has in the deterioration of the primary and secondary systems.

Table 4
Federal-Aid Apportionments
to Montana
(Millions)

	FFY82	FFY84
Interstate	\$17.8	\$ 9.9*
Interstate - 4R	18.7	37.2
Primary	17.5	23.7
Secondary	7.2	11.7
Urban	3.8	3.9
Bridge Replacement	3.2	11.2
Other	10.9	8.8
Total:	\$79.1	\$106.4

* Due to the inaction of Congress on the 1984 Interstate Cost Estimate (ICE), the state received only \$9.9 million of an expected \$17.8 million apportionment.

For several years the federal government, as a budgetary measure, placed an "all programs" obligation ceiling on each state which is less than the sum of the funds apportioned to all of the program categories. This creates a situation where the fund balances which are being carried on Department books consist partly of unspendable money; they are a sort of "IOU" from the federal government. But the obligation ceiling is the key to understanding the actual level of funds being provided by the federal government. It constitutes the actual level of dollars the Department has available to commit to new projects. For example, while Montana's apportionment in fiscal 1982 was \$79 million, its fiscal 1982 obligation ceiling was \$66 million - the amount of funds that could actually be spent. In fiscal years 1983 and 1984, obligation ceilings very closely matched new funds apportioned. Hopefully this will continue in future apportionments.

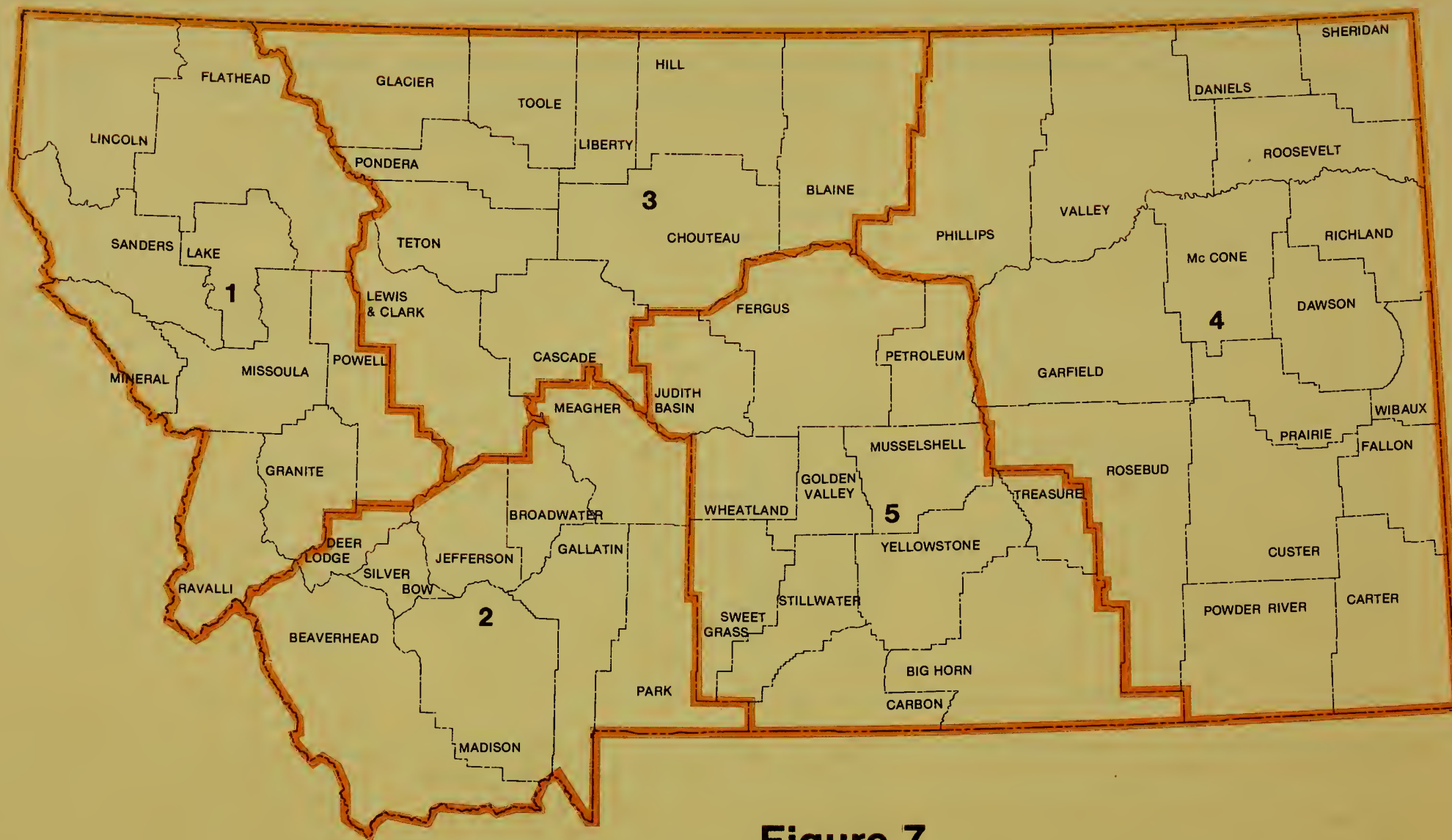


Figure 7
Highway Financial Districts

— Financial District Boundaries
 3 Financial District Numbers

The Department, because of its adherence to project scheduling and programming, has been able to use all of its obligation authority, and has also been able to receive discretionary funding. During the biennium, the state received a total of \$6.5 million in additional funds from other states' lapsed obligation authority, \$33.7 million in Interstate Discretionary funding, and an additional \$4.5 million under the Public Lands program.

Distribution of federal-aid interstate, primary, secondary, and urban construction funds is accomplished according to the state Financial District Law. The intention of this law is that each highway system and area of the state receive a fair share of highway construction funds. Only state highway matching funds are subject to this law, but since the state money is used to match federal funds, the net effect is a distribution of all construction monies. It is important to note that the distribution of funds to financial districts is based on the state's apportionment and not the obligation level. Therefore, financial districts will likely be carrying larger apportionment balances than there are dollars to spend.

The distribution of funds required by the Financial District Law for the major highway program in Montana is as follows:

Interstate

Federal interstate funds are matched by state funds. The state matching funds are then distributed to the five financial districts in the ratio of the cost of completing the interstate system in each financial district to the total cost of completing the interstate system in the state. This is very similar to the method used by the federal government to apportion interstate construction funds to the 50 states. A financial district may overrun its yearly allocation by 300 percent. By the end of the biennium, there will be only four

miles of interstate remaining to be completed in the state, and therefore, it is not feasible to follow the overrun limitation.

Primary

Federal primary funds are matched by state funds and the state matching funds are then distributed to the five financial districts. The share a district receives is based on the ratio of its deficient primary system mileage to the deficient mileage statewide. The law allows the Highway Commission to define critically deficient mileage and to cause a greater proportion of funds to flow to these districts having more critically deficient primary system mileage. This law also provides that no financial district may receive more than one-third of the funds. Table 5 shows the distribution percentages for the 1984-85 biennium. A financial district may overrun its yearly allocation by 25 percent.

Table 5
Federal-Aid Primary System
Computation of Percentages for
Allocating State
Construction Funds to Financial
Districts for FY 1984

<u>FINANCIAL DISTRICT</u>	<u>ADJ. PERCENTAGE FOR ALLOCATION*</u>
1	33.333%
2	12.390%
3	15.151%
4	23.687%
5	15.439%
TOTAL	100.000%

* In accordance with state law, no financial district may receive more than 1/3 (33.333%) of the total funds available in any biennium. Since Financial District No. 1 would have received a percentage in excess of the legal limit, the percentages were adjusted according to state statute.

Secondary

State funds are used to match federal funds and are distributed to each county on the basis of the following criteria: 1) one-fourth in the ratio of the land area in each county to the land area in the state; 2) one-fourth in the ratio of the rural population in each county to the rural population of the state; 3) one-fourth in the ratio of the rural road mileage in each county to the rural road mileage of the state; and 4) one-fourth in the ratio of the value of rural lands in each county to the total value of rural lands in the state. A county may overrun its yearly allocation by 300 percent, but the financial districts are limited to a 25 percent overrun in their yearly allocation.

Urban

Federal urban funds are matched by state funds and are distributed to all cities in the state having over 5,000 population in the ratio of the population of each city over 5,000 to the total population of all cities over 5,000 in the state. The total overrun by city cannot exceed the total urban allocation.

Major federal-aid programs for which funds are administered on a statewide basis include the Interstate 4R (Reconstruction, Rehabilitation, Resurfacing, Restoration), Highway Bridge Replacement and Rehabilitation, and Highway Safety programs. Montana also benefits from direct federal funding provided under the Forest Highway and Public Lands programs.

Advanced Construction - Interstate (ACI)

The ACI program is designed to allow states to accelerate the construction of interstate by committing future federal interstate funds for current construction activities. This program enables states to complete large or uncompleted sections of in-

terstate at one time, gaining the engineering and economic benefits of economy of scale, and avoiding future inflation costs, which could be substantial. As is the case in Montana, the ACI program is usually tied to the issuance of bonds for immediate highway construction, with the federal government participating in the repayment of the bonds by committing future interstate funds. The federal government will also participate in interest payments, based on a mathematical formula derived from the growth in the Construction Cost Index.

Montana Highway Revenue Bond Program

The 1983 Legislature authorized the state to issue up to \$150 million in Highway Revenue Bonds, including Bond Anticipation Notes. During 1983 the state issued bonds for two purposes: Highway Revenue Bonds to provide funds for matching purposes, primarily for the increased federal funding of the Interstate 4R and bridge replacement/rehabilitation programs, and, Bond Anticipation Notes for the ACI program, as discussed above.

In fiscal 1984, of the \$64 million in Highway Revenue Bonds issued, the Department obligated \$36 million for projects let during 1983 and 1984, and has spent \$18.3 million on construction of those projects. Of the \$39 million in Notes issued, the Department obligated \$23 million and will obligate the remaining funds during fiscal 1985 on interstate projects.

As proposed to the 1983 Legislature, the highway bond program, as finally structured, is expected to have a positive impact on the earmarked fund if interest earnings continue to be greater than the interest expenses.

Reconstruction Trust Fund

During the 1983 Legislature the Department proposed a 100% state funded \$40

million a year Reconstruction Trust Fund (RTF) program designed to reverse the decline in the quality of the state's highways, principally on the primary system. The Department requested an increase in the gasoline and diesel fuel taxes and GVW fees, and proposed to use a portion of the Coal Severance Tax revenues to fund the new program. The Department also proposed to change the funding of the Montana Highway Patrol to the state general fund which would free up \$5 million of current earmarked revenues.

In passing the RTF proposal, the legislature authorized up to \$40 million a year from the RTF, and significantly changed the funding for the program. The legislature made permanent the temporary 1¢ previously levied, and increased the motor fuel taxes by an additional 6¢ a gallon to 15¢ for gasoline and 17¢ for diesel. Of the 6¢ increase, 1½¢ were provided to the cities and counties which increased their share of the highway earmarked revenues from \$6.5 to \$14 million. The legislature did not increase the GVW fees or transfer the Patrol to the general fund, as the Department proposed. Instead, 1¢ of the 6¢ increase was provided to continue to fund the Highway Patrol from the highway earmarked account. The net effect is, of the increased revenues, the Department received only 3½¢ of the 6¢ increase to fund the RTF, or approximately \$17.5 million. The use of the Coal Severance Tax proceeds was also approved; however, a technical error in the statute must be corrected by the 49th Legislature for the Department to fully utilize these funds during the 1986-87 biennium.

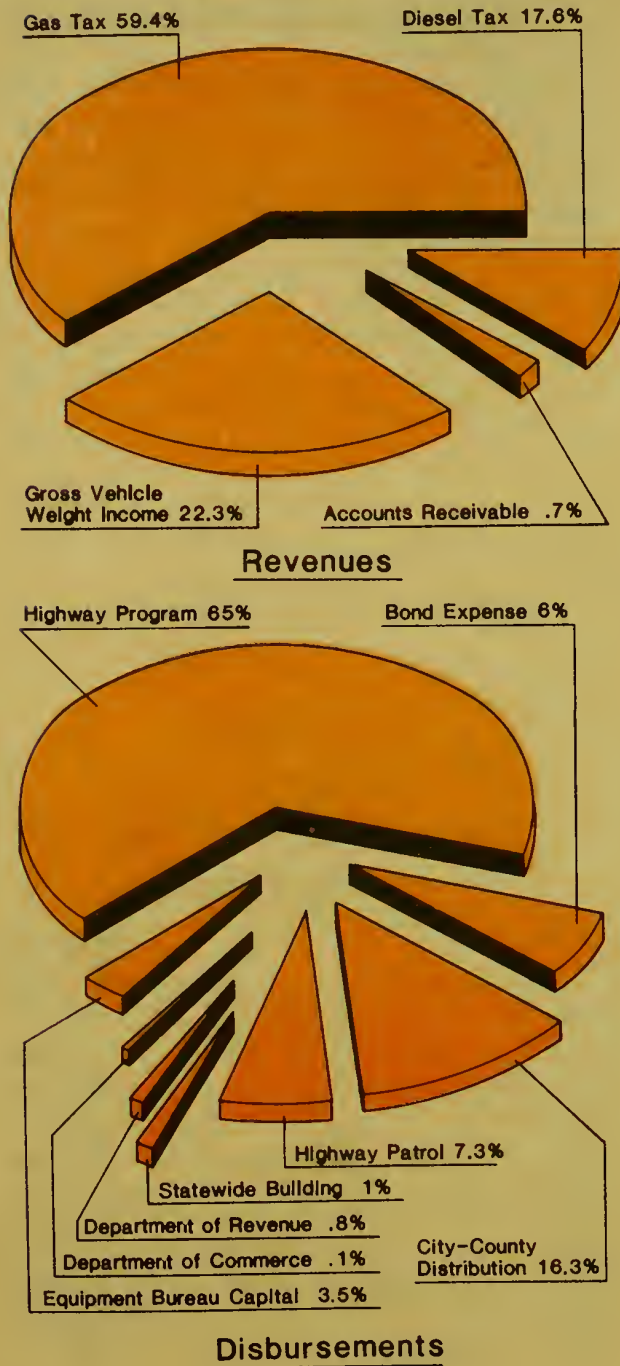
The Department received \$12 million a year in general funds for construction and a limited RTF program during the 1982-83 biennium. The withdrawal of general funds previously provided and the shortfall have a

negative impact on the highway earmarked fund balance. The Department is currently programming \$40 million a year in RTF activities, including \$8 million for pavement preservation and \$32 million for reconstruction. Since expenditures always lag contract lettings by several years, the full impact of contract letting of \$40 million a year will not be fully realized in expenditures of earmarked funds until 1986 and beyond. Because the revenues to support the \$40 million a year RTF program are less than that amount, a point will be reached sometime in the future when increased revenues or program reductions will have to occur. Further, increased matching amounts needed to meet the increased levels of federal funding, and increases in other earmarked funded programs such as the Highway Patrol, Maintenance and Equipment Division and the Department of Revenue, will also reduce the amount of funds available for future program purposes. As a consequence of these two factors, it is estimated the revenues will again fall short of expenditures beginning in fiscal 1986, even if the technical error with the coal severance proceeds is corrected by the 49th Legislature.

Highway Program Revenues

Highway program revenues are collected and disbursed in several different accounts, but the major ones are the Federal Revenue Account, which is the repository for all Federal assistance, and the Highways' Earmarked Revenue Account, which is the repository for all state revenues generated primarily from user fees. It is important to note that considerably more funds flow through the State's Highway Earmarked Fund each fiscal year than are actually used in the highway program itself. Figure 8 illustrates this fact by showing both revenues and expenditures of the account for fiscal

Figure 8
Revenues and Disbursements,
Fiscal Year 1984



year 1984. As Table 6 indicates, approximately 20 percent of state-generated revenues are diverted to other agencies and local governments. The remaining funds are disbursed to the highway program.

federal funding, such as at present, the Department is required to play catch up to ensure sufficient projects are in the process to meet the increased funding. Conversely, during periods of declining revenues, the Department has had to reduce its efforts to

Table 6
Highway Earmarked Revenue Account

Revenues	FY 1984	FY 1985 Proj.
Gross Vehicle Weight Income	\$ 22,624,855	\$ 23,157,280
Gas Tax	60,194,401	62,623,765
Diesel Tax	17,793,066	19,704,750
Accounts Receivable	662,546	686,048
Total:	\$101,274,868	\$106,171,843
Disbursements		
Highway Program	\$ 56,243,778	\$ 56,587,340
City-County Distribution*	14,075,001	14,075,000
Highway Patrol*	6,301,159	6,375,150
Department of Revenue*	681,707	750,403
Statewide Building	838,097	1,087,245
Equipment Bureau Capital	3,002,594	2,568,000
Department of Commerce*	75,000	75,000
Bond Expenses	5,306,234	4,898,063
Total:	\$ 86,523,570	\$ 86,416,201

*** Non-Highway Department**

The most dramatic fluctuation in revenues has occurred in the Federal Revenue Account. After a high of \$133 million in federal receipts in fiscal 1980, federal funds dropped to \$72.6 million in 1982, and are now projected to again increase to \$130.4 million in fiscal 1985. Because Montana highway program planning requires five- and seven-year engineering cycles, these wide fluctuations in federal funding introduce significant peaks and troughs in the planning and design process, leading to over- or under-programming at any one time. During periods of increasing

ensure that significant over-programming does not occur. These fluctuations in federal funding are expected to continue in the future, given the various funding and formula proposals before Congress each year.

The other principal revenue sources - state-imposed motor fuel tax receipts - have increased dramatically in fiscal 1984 due to the fuel tax increases approved by the 48th Legislature. As Table 7 indicates, fiscal 1984 experienced a 62% increase in state revenues over fiscal 1983. Virtually all of the increase is due to the increased fuel taxes, not increased fuel use. Figure 9 depicts the

Table 7
Fuel Tax Receipts, 1975-1985
(in thousands of dollars)

Fiscal Year	Gasoline	Diesel	Total	Percent Change
1975	\$29,156	\$ 6,703	\$35,859	—
1976	32,723	7,915	40,638	13
1977	34,552	8,787	43,339	7
1978	36,893	9,252	46,145	6
1979	37,603	9,907	47,510	3
1980	39,189	10,788	49,977	5
1981	36,272	11,777	48,049	(4)
1982	36,816	11,591	48,407	1
1983	36,133	11,877	48,010	(.8)
1984	60,194	17,793	77,987	62
1985*	62,624	19,705	82,329	6

*Estimated

fluctuations in motor fuel use in Montana since 1972. As noted, 456 million gallons of gasoline (which includes gasohol) and 121 million gallons of diesel fuel are projected to be sold in 1984. The 1984 gasoline gallonage represents less than a 1% increase from the gallons sold in 1983, and indicates that the trend towards more fuel-efficient, lighter vehicles continues to be felt, as can also be noted in the vehicle registration and travel volume increases.

Conversely, the gallons of diesel projected to be sold in 1984 represent a significant increase of 15% over the sales in 1983. This supports other indications that larger trucks are becoming more of a factor in the total vehicle stream.

Because gasoline comprises about 80% of the total motor fuels sold in Montana, such increases in diesel sales are offset by small increases in gasoline sales, providing little positive impact on highway-user revenues.

Figure 9
Montana Motor Fuels
Gallons/year

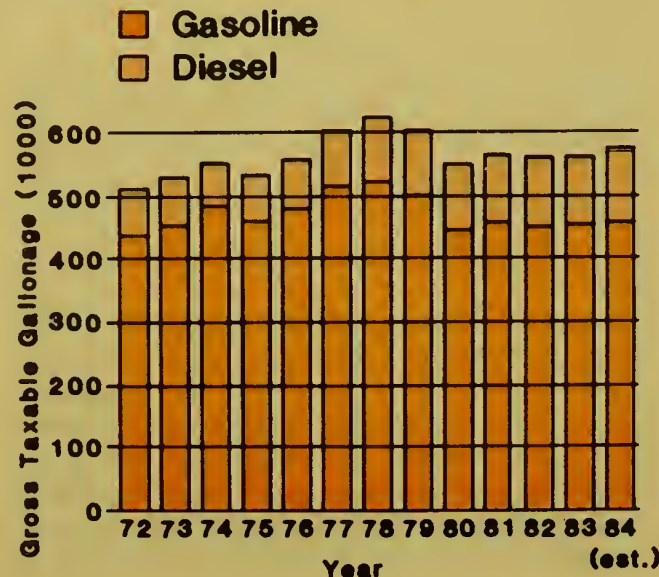


Table 8
Federal Receipts, 1975-1985
(in thousands of dollars)

FISCAL YEAR	FEDERAL RECEIPTS
1975	\$ 47,981
1976	72,664
1977	102,960
1978	87,461
1979	76,539
1980	133,273
1981	122,521
1982	72,566
1983	84,797
1984	108,533
1985 (Projected)	130,427

It is worthwhile to note that if increased highway revenues from user fees are necessary in the future, the increases will have to be generated from additional fuel tax increases rather than depend on increased motor fuel use.

Income from other revenue sources, such as gross vehicle weight fees and mineral royalties, has risen at a steady rate over the past several years, and is expected to continue to grow.

Highway Program Expenditures

The Montana Highway Program expenditures have closely mirrored the program revenues. Table 9 provides a summary of expenditures since fiscal 1980 through projected 1985. As noted in Table 9, the expenditure levels have increased from \$152 million in 1982 to a projected \$260 million in 1985, a 71% increase due to the increased construction program. This increase was possible due to the increased fuel taxes at the national and state level and the implementation of the RTF program. The Department's 1986-1987 biennium budget request will show even higher levels of expenditures due to the continued high level of activity anticipated, and the full impact of the RTF program.

As previously noted, about 20% of state-generated revenues are diverted to other agencies and local governments. On the expenditure side, other agencies and local governments expended 24.5% of the total highway earmarked funds spent in fiscal 1984, as noted in Table 6.

Of the programs administered by the Department, construction is by far the largest, representing 65% of the fiscal 1985 budget and includes the funds necessary for payments to contractors. This program is also the most sensitive to changes in federal funding. The maintenance program is the second largest, representing 16% of the 1985 budget.

Notwithstanding the trends just described, the Department will be able to maintain its current high level of program activity through the 1986-87 biennium and will not submit a request for fuel tax or other revenue increases to the 49th Legislature.

Table 9
Montana Highway Program*
Expenditures 1980-1985

(in thousands of dollars)

Program	1980	1981	1982	1983	1984	1985***
General Operations	\$ 5,332	\$ 5,979	\$ 5,106	\$ 4,913	\$ 5,641	\$ 6,250
Gross Vehicle Weight	1,549	1,656	2,287	2,674	2,899	3,107
Construction	132,979	137,432	84,367	105,353	132,113	168,939
Maintenance	30,189	30,650	34,387	38,057	37,388	41,271
Travel Promotion**	590	609	--	--	--	--
Preconstruction	12,284	11,383	10,526	10,876	10,755	10,786
Equipment	882	1,644	2,816	2,179	3,003	2,568
Buildings	895	2,547	678	796	838	1,087
Transfer to Other Agencies	15,390	15,926	12,269	13,902	21,133	21,276
Bond Expenses	--	--	--	--	5,306	4,898
Totals:	\$200,090	\$207,826	\$152,436	\$178,750	\$219,076	\$260,182

*Excludes all revolving funds

**Transferred to Dept. of Commerce and funded with General Fund

***Projected

Table 10
Federal Obligation Authority
1978-1985

(in thousands of dollars)

FISCAL YEAR	FEDERAL OBLIGATION AUTHORITY
1978	\$ 74,083
1979	155,145
1980	82,728
1981	87,941
1982	66,128
1983	105,583
1984	107,143
1985 (Projected)	114,500

VI - HIGHWAY NEEDS

The 1982 highway needs assessment presented to the 48th Legislature was the first round of a new and ongoing needs analysis process for the state. The assessment process provided a basis for a better understanding of the nature and extent of our highway needs. It also provides a base to effectively measure the degree of need and translate these needs into dollar terms before programs are formulated and approved.

To accurately assess highway needs in Montana is a complicated and difficult process; however, it reflects the Department's commitment to limited reconstruction and expanded preventative maintenance as a more cost-effective way of utilizing limited resources.

The purpose of this section is to provide a summarization of the basis for the 1982 needs assessment and to recap some of the major results. This section also provides a status of where we are today in meeting the needs as reported to the 48th Legislature.

The 1982 Needs Assessment

The 1982 analysis was a joint undertaking by both headquarters and field office personnel of the Department of Highways. It covered the entire federal-aid system, including interstate, primary, secondary, urban and bridges. The general finding in 1982 was that Montana, as most other states, had problems of extraordinary dimensions. The age of Montana's highway system is a big contributing factor to many of the problems identified. A prime example of this is the roadways which comprise the primary system. Half of these roadways are over 25 years old, with over 25 percent over 40 years old. Another contributing factor was that the major emphasis and resources in past years had been placed on completing the interstate

system. Consequently, Montana's other highway systems did not receive equal attention.

As expected, the Department's 1981 Sufficiency Study found that a fairly direct correlation exists between roadway age and its overall condition. Figure 10 shows the age of the primary system while Figure 11 shows the miles of rural primary highway constructed between 1934 and the end of calendar year 1983. A look at sufficiency trends since 1972 suggests that the work carried out on Montana's primary system since then has not even allowed the state to hold its own, even though the changes have not been dramatic.

Highway sufficiency ratings are determined through the application of a formula which considers the structural adequacy, safety, and traffic capacity of the roadway and rates the roadway on a scale from 1 to 100. Currently, a section of highway with a

sufficiency rating of 60 or less is considered deficient. A section with a sufficiency rating of 40 or less is considered critically deficient. Figure 12 presents sufficiency ratings for Montana's primary system as of December 31, 1983. As Figure 12 indicates almost half of the system mileage has a rating of 60 or less and is considered deficient. Those sections which are deficient (blue) and critically deficient (red) are indicated on the accompanying state map - Figure 13.

The 1982 needs assessment analytical process looked at two approaches to defining needs. The first was based on full current design standards; the second was based on a modification in the approach to how those standards would be applied in order to achieve a reasonable level of service on major highway systems. The following recaps the basic planning constraints applied when analyzing highway needs under a full design and a modified level of service.

Figure 10
Age of Rural Primary System

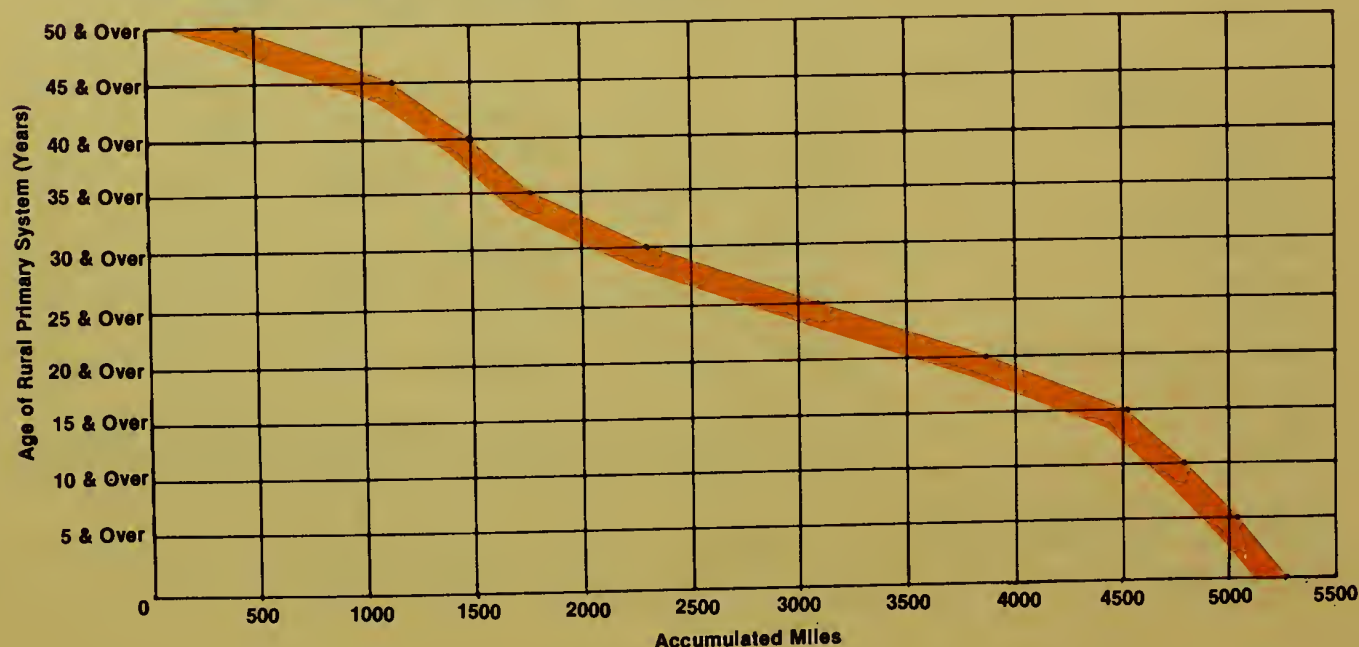


Figure 11
Miles of Rural Primary Constructed

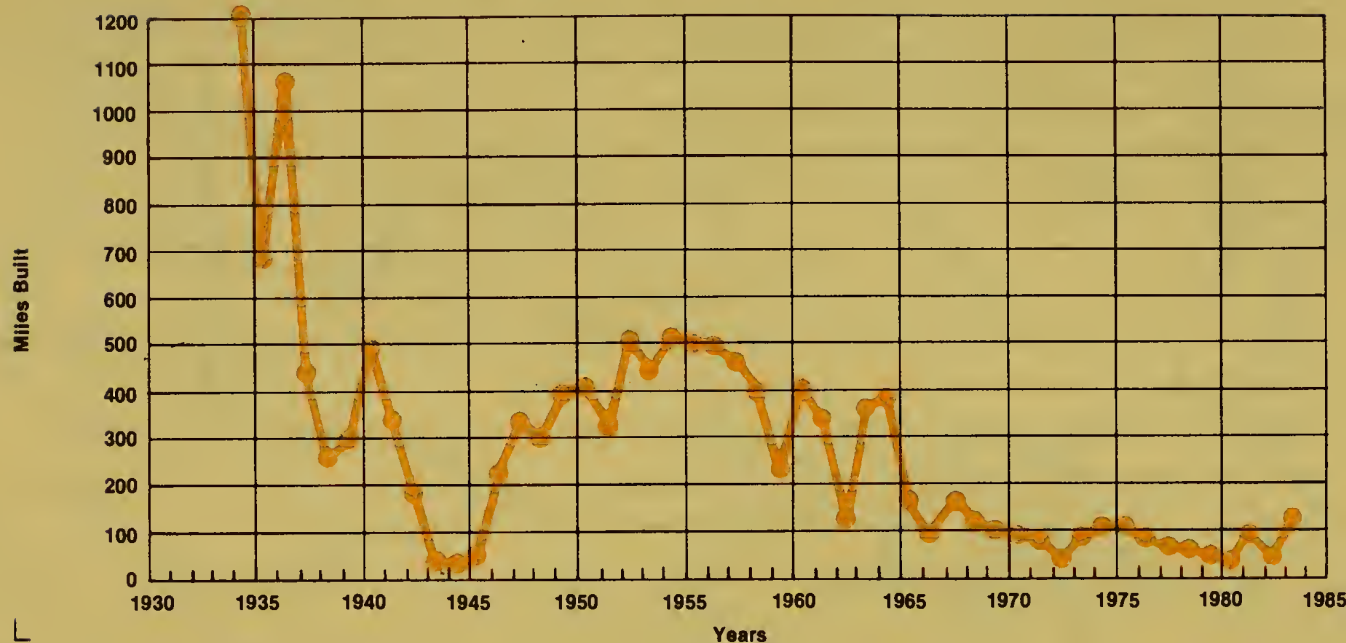
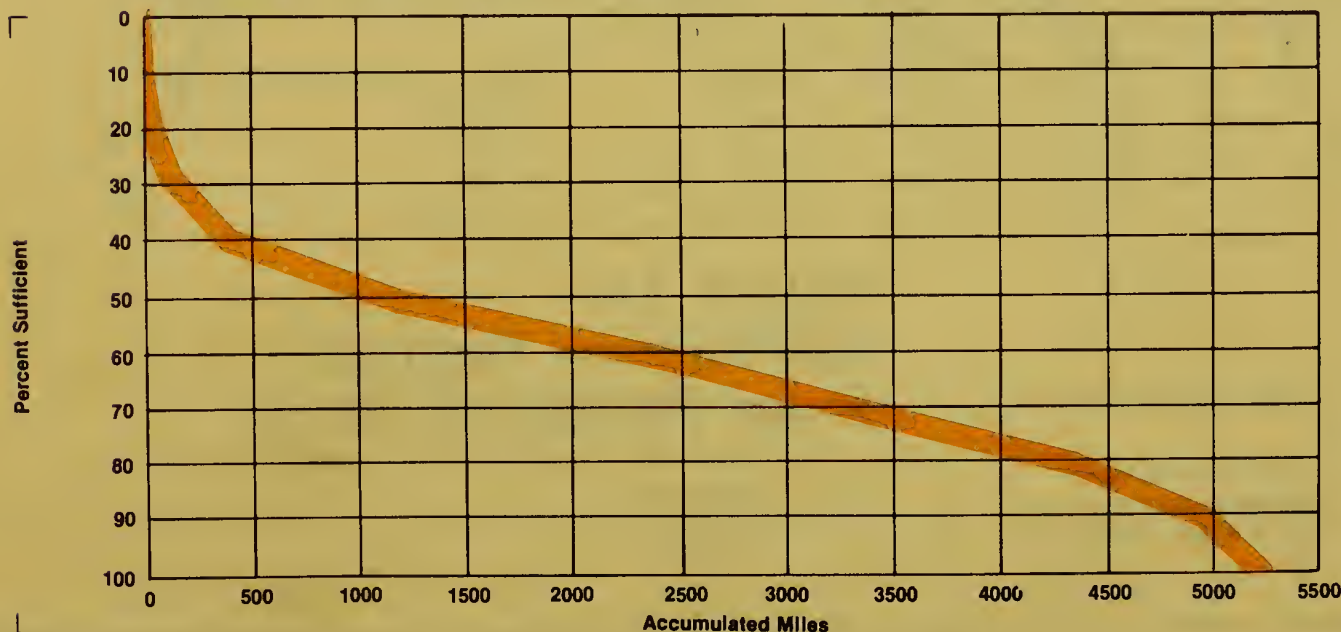


Figure 12
Adjusted Sufficiency Rating on Primary System



1982 Needs Based on Full Design Standards

Interstate

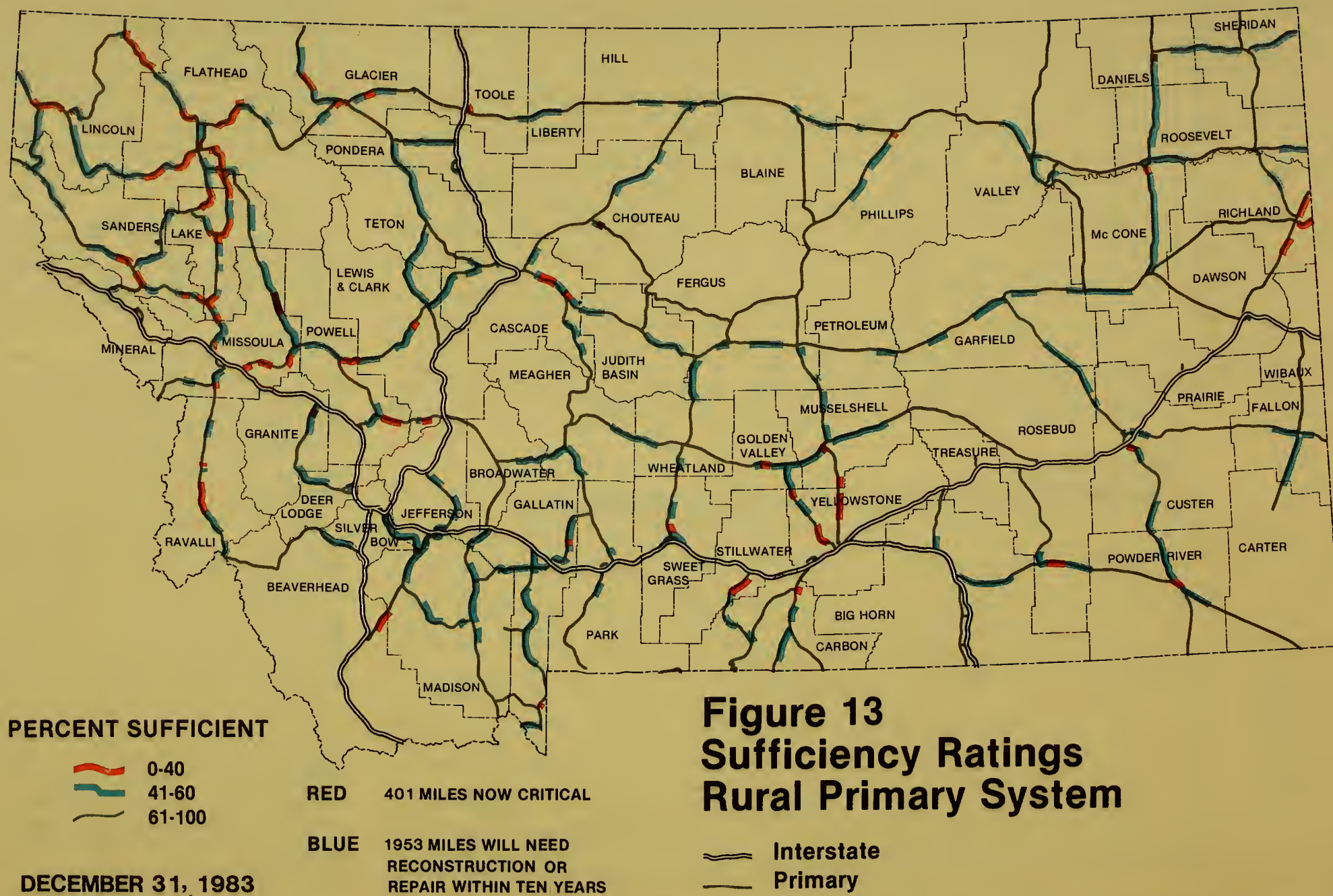
All remaining construction would be accomplished pursuant to full design standards; all reconstruction and repair would be done in accordance with I-4R standards. Pavement preservation would be carried out on a cyclic basis, with seal coats every 7 years and overlays every 14 years.

Primary

Sections rated 60 or less on the sufficiency scale are considered generally deficient and would be candidates for full reconstruction or other major improvements. Accidents were not used in order to eliminate any undue bias.

Sections rated greater than 60 are generally in reasonably good condition and can be maintained in that condition by a planned program of pavement preservation activities in order to obtain the maximum life for which pavement is engineered. As on the interstate system, seal coats would be done in 7 year cycles and overlays done every 14 years. It was further assumed for planning purposes that all reconstruction needs would be met immediately so that all primary mileage would be included in a 7/14 year cycle of pavement preservation. This was calculated to be 390 miles per year for seal coats and the same mileage annually for overlays.

The sections with a sufficiency rating of between 40 and 60 are not considered critical. These sections will receive the 3R-type improvements. These include overlay and minor widening. (The 3R program is a federal initiative to emphasize the use of low-cost performance-related improvements as an alternative to reconstruction.)



Secondary

All secondary roads would be improved to full design standards, including paving. Cyclic maintenance needs would be met by the counties as they are now.

Urban

Urban needs were developed for the total system rather than on a section-by-section basis. This was necessary due to the lack of inventory data pertaining to roadway conditions within defined urban limits. For this same reason, the five urban areas having current transportation plans were used as typical areas in determining urban system needs on a statewide level.

Bridges

A bridge would be rehabilitated or replaced if it were deemed to be either structurally or functionally obsolete. The former means that a structure has developed significant structural deficiencies, while the latter means that though the bridge is structurally sound, it is no longer adequate to handle modern traffic demands.

By applying these constraints to highway needs, it was determined in 1982 that the 10-year cost to improve Montana's highway system to full design standards would be \$3.9 billion. Table 11 shows a cost breakdown by system.

The general conclusion in the 1982 assessment under the full design standard approach was that Montana simply could not meet needs of this magnitude. Thus a second, more realistic means of assessing existing needs was sought, which was termed modified level of service.

Table 11
1982 Needs Assessment for Montana Highways
10-Year Program
Full Design Standards
(in thousands of dollars)

System	Construction/ Reconstruction ¹	Cyclical Pavement Preservation ²	Total Needs	Annual Needs	Annual Available Funds ³	% of Needs Met	Annual Additional Funds Req'd
Interstate	154,483	319,746	474,229	47,423	34,632	73	12,791
Primary	1,435,192	470,925	1,906,117	190,612	30,379	16	160,233
Secondary	1,177,355	—	1,177,355	117,736	12,492	11	105,244
Urban	223,503	—	223,503	22,350	6,719	30	15,631
Bridges	155,425	—	155,543	15,543	4,634	30	10,909
Total	3,145,958	790,671	3,936,629	393,664	88,856	23	304,808

¹ One-time construction and/or reconstruction costs

² Assumes a cycle of seal coats on sufficient roadways at 7 years, with an overlay at 14 years on the same roadways. Costs for secondary and urban systems are not included because nearly all of these systems are maintained by counties and cities.

³ Federal obligation authority estimated at \$80 million per year

NOTE: All calculations are expressed in 1982 dollars; inflation factors are omitted.

1982 Needs Analysis Based on a Modified Level of Service

Interstate

Since little, if any, flexibility exists in design standards, it was assumed that no changes could be made in calculating needs related to completing construction on this system. However, cyclic pavement preservation activities could be stretched out on a longer cycle. Thus 10 and 20 years were used to calculate these needs instead of the 7 and 14 years used in the full design standards level. It is recognized that reducing the frequency of pavement preservation activities could result in both increased maintenance costs and reductions in the level of service provided the highway user.

Primary

The same 10 to 20 year cycle was used for pavement preservation needs on this system. In this case, however, the mileage in need of some level of reconstruction was subtracted from the total. This is based on the assumption that it would be covered at one point or another in the 10-year planning period. Thus, the mileage which would receive pavement preservation in the next 10 years would total 3,292, or 165 miles per year to be seal coated and 165 to be overlaid. For full reconstruction needs, it was determined that only those sections of highway classified as principal arterials and as critically deficient (a sufficiency rating of 40 or less) would be candidates for full reconstruction. All other sections classified as both principal and minor arterials with a sufficiency rating of 60 or less would be eligible for minor widening and/or resurfacing. All other sections rated above 60 would be eligible for pavement preservation activity during the 10 year planning period.

Secondary

Rather than using full design standards to upgrade the entire secondary system, 3R standards would be used. This means that paving would be done only on those sections which are already paved or on gravel-surfaced route with traffic volumes of 700 vehicles per day or more. Paved sections would be widened to 24 feet, if necessary. Gravel sections would be widened to 20 feet, if necessary, and regraded, if appropriate.

Because counties are responsible for establishing construction and reconstruction priorities and for maintaining this system, it is important to note that the Department is not proposing to change the way secondary priorities are established. Use of the 3R standards is for analysis purposes only to try to establish the needs of the system with an assumed modified service level.

Urban

Since needs on the urban system are usually developed through a formal planning process at the local level, no modifications were made from those shown under "Full Design Standard."

Bridges

The major modification in this area was only to replace those structures which are eligible for replacement under the current federal bridge replacement standards.

Applications of these modified standards results in a considerably lower level of needs. By applying these constraints to highway needs, it was determined that the 10 year cost to improve Montana's highway system to modified level of service standards would be \$1.8 billion in 1982 dollars. Table 12 shows a cost breakdown by system.

Even under a modified level of service, the 1982 needs assessment concluded that an additional \$87.9 million per year in 1982 dollars would be required to meet the 10 year needs.

Current Status 1982 Needs Assessment

As discussed in the previous section, the basic conclusion of the 1982 needs assessment was that a modified level of service standards was the most we could afford in Montana. Therefore, planned programs in the current and the next biennium are premised on the basic planning constraints developed and used in the 1982 needs analysis for a modified level of service.

Since the Department has gone through only about 16 months of the 10-year needs cycle at the time this report was written, any attempt to update the 1982 needs assessment was considered premature. An updated and more detailed needs analysis will be presented to the 50th Legislature and will better represent the impact of the current program. However, it is clear that the prognosis for meeting the 10-year needs identified in 1982 has improved significantly since the last report. The following reflects the general impact of the program on the 1982 assessment.

Interstate

By the end of the 1986-87 biennium, contracts will have been let to close all of the remaining gaps and complete construction on the interstate system. The estimated cost for these final steps is \$50.7 million, at the time this report was written. After these contracts are let, interstate construction funds will be dedicated to repayment of the bonds issued for the Accelerated Construction - Interstate program. When these bonds are repaid in the early 1990s, or sooner if additional federal

funds are received, the interstate construction portion of the interstate needs section will be satisfied.

The other major component of interstate needs is for cyclical pavement preservation needs and for additional facilities on the interstate such as interchanges, guardrails, and fencing. A major step forward in reducing the backlog in these needs will be completed with the letting of I-4R projects during the next biennium. After that, I-4R needs will continue but at a lower level than during the current and next biennium.

Therefore, if federal funding from the interstate program continues at the current level, the needs of this system will clearly be met over the 10-year cycle. There may even be opportunities to apply some of these funds to meet the obvious gaps between

needs and funds in the primary system.

However, given the uncertainties of federal funding and especially the tenuous situation for I-4R funding, it is premature to begin incorporating this possibility into the needs assessment.

Primary

During the current and the next biennium, \$262 million, including seal and cover, will have been committed towards meeting the needs on the primary system. The implementation of a continuing program of pavement management projects has already served to extend the life of a number of miles of the primary system. As the 100% state funded Reconstruction Trust Fund money begins to

come on line in 1985, major progress on large primary system reconstruction projects will become evident. Discounting the continuing erosion caused by inflation, the Department believes that the additional funding available for the primary system would enable the Department to meet in excess of 60% of the modified service level primary system needs; this compares to a level of 34% reflected in Table 12 based on 1982 funding levels and 1982 construction costs. Although significantly more of the primary needs are being met than indicated in the 1982 assessment, it must be emphasized that there is still substantially less funding available for the primary system than the assessment indicates is necessary, even under the modified level of service.

Table 12
1982 Needs Assessment for Montana Highways
10-Year Program
Modified Service Level
(in thousands of dollars)

System	Construction/ Reconstruction ¹	Cyclical Pavement Preservation ²	Total Needs	Annual Needs	Annual Available Funds ³	% of Needs Met	Annual Additional Funds Req'd
Interstate	154,483	206,885	361,368	36,137	34,632	96	1,505
Primary	702,072	199,238	901,310	90,131	30,379	34	59,752
Secondary	193,898	---	193,898	19,390	12,492	64	6,899
Urban	223,503	---	223,503	22,350	6,719	30	15,631
Bridges	87,223	---	87,223	8,722	4,634	54	4,088
Total	1,361,179	406,123	1,767,302	176,730	88,856	50	87,875

¹ One-time construction and/or reconstruction costs

² Pavement preservation is based on a cycle of seal coats every 10 years and overlays every 20 years

³ Federal obligation authority estimated at \$80 million per year

NOTE: All calculations are expressed in 1982 dollars; inflation factors are omitted.

Secondary and Urban

The state and federal funding made available to aid local governments on the secondary and urban systems continues to fall considerably short of meeting the needs of those areas. One especially serious need is for effective and timely pavement preservation work on paved portions of the federal-aid secondary system. In some cases, local governments have undertaken significant improvements on these systems using local funding or combinations of local funding augmented by state and federal funding. The future outlook for federal funds for secondary and urban systems is not encouraging due to continued emphasis at the national level to shift the responsibility of these systems to the local level.

Bridges

The long-range outlook for replacing the 422 critically deficient bridges located on the federal-aid system, based on present funding levels, appears very good. Since bridge rehabilitation is a more cost-effective strategy, the Department expects to continue with a combination of bridge replacement and bridge rehabilitation programs rather than pursuing only the bridge replacement needs defined in Table 12. Although the newly-implemented off-system bridge replacement program will do much to improve local road bridges in Montana, there are still very large off-system bridge needs that clearly will not be met.

Non Federal-Aid System

Although the generally acknowledged governmental function of the Department of Highways is to build and maintain the major arterial highway systems in Montana, the Department continues to be responsible for 1,065 miles of frontage roads and other local service roads. These roads are not eligible

for federal-aid assistance, and the burden of continuing to maintain a paved surface on practically all of this mileage will be an increasing drain on the state funding which becomes available in the future. These needs are not reflected in Table 12 nor were they addressed in the report to the 48th Legislature. These roads have a serious backlog of immediate pavement preservation needs. Without detailed study, it is estimated that the near-term needs are at least as serious, in proportion to the mileage involved, as are the cyclical pavement preservation needs on the primary system.

The above discussion of system needs, while logical and consistent with the assumptions in the report to the 48th Legislature, is probably overoptimistic. Several factors which will probably influence actual accomplishments being somewhat less than current expectations are:

1. Inflation in highway costs will probably continue. Since the data in Table 12 has not been brought current, any inflation which occurs after 1982 will tend to make the available dollars buy less construction and thus meet relatively fewer of the needs stated.
2. The 10-year/20-year average service life for seal and cover/overlay, which are a basic part of the modified service level plan assumptions, may not prove to be realistic. Traffic growth and unexpected pavement damage due to rutting and other causes may dictate the use of shorter service lives for these pavement elements.
3. Needs for full reconstruction were premised on no reconstruction being carried out on nearly 60 percent of the primary system which is functionally classified as "minor arterial." Although the Department is still placing somewhat greater emphasis on the principal arterial portion of the primary

system, the idea of eliminating full reconstruction on all minor arterial routes has been modified. The Department's experience has been that low cost solutions work well and will continue to be utilized where possible. However, low cost solutions are not always possible or cost effective. Consequently some full reconstruction is now being considered for minor arterials.

4. Some additional mileage will continue to become "critically deficient." Although substantial progress will be made toward correcting the critically deficient mileage, and while the pavement preservation program will reduce the rate of pavement deterioration, a certain amount of mileage will continue to evolve toward the "critically deficient" category. The extent to which this is occurring is difficult to measure and is not quantified. However, to the extent this phenomena is occurring, the reconstruction needs in Table 12 are understated.

VII - BUILD MONTANA: The Current Construction Program

1984-85 Biennium

In the report to the 48th Legislature, the Department stated that the 1984-85 Highway Program was the first step in a 10-year program to "correct most of the deficiencies on the state's primary system, preserve the integrity of those road sections that currently meet sufficiency standards, and to complete the interstate system in Montana." The Department's proposal contained three key elements: current level federal funding to maintain current level activities on the federal-aid system, the Reconstruction Trust Fund program, and use of the Advanced Construction - Interstate (ACI) program to close the remaining gaps on the interstate system.

The 48th Legislature provided most of the tools for the Department to meet its goals. The legislature passed Senate Bills 10 and 92 and House Bills 7 and 9 which expanded the Highway Commission's authorities in the areas of project selection and prioritization, determining sufficiency levels for fund apportionment to the primary system, and restructured the financial districts to parallel the Commission Districts. The legislature also passed HB 16 which increased the motor fuel taxes by 6¢ a gallon, HB 730 which established the \$40 million Reconstruction Trust Fund program, and SB 454 which provided \$150 million in bonding authority to match the increased federal funds and the Advanced Construction - Interstate program. In addition, the 1982 Surface Transportation Assistance Act passed by Congress provided substantial increases in federal funding, enabling the Department to expand its current activities on the federal-aid system.

As a result of the actions taken by the Montana Legislature and Congress, the Department has been able to meet most of

the goals set for the 1984-85 biennium. Specifically:

- During fiscal 1984 the Department let a total of \$177 million to contract, and expects to let another \$153 million in fiscal 1985. This compares to \$90 million in fiscal 1983.
- By the end of the current biennium, the Department will have contracted for or completed 70 miles of the remaining 74 miles of interstate, utilizing the ACI program, bonds, and special interstate discretionary funds.
- Preliminary engineering work has begun on projects which will result in the reconstruction or other correction over the next seven years on most of the 458 miles of primary identified in 1983 as "critically deficient." During the current biennium, 70 miles of critically deficient and 144 miles of deficient primary will have been reconstructed or let to contract.
- The RTF program has enabled the Department to complete over 100 miles of pavement preservation in fiscal 1984, and expects to complete an additional 350 miles in fiscal 1985.
- At the end of September, 1984, the Department has either contracted or completed the repaving of 340 miles of interstate, or 28% of Montana's total interstate miles, due to the increased Interstate 4R funding.
- Utilizing the increased federal funding commitment to bridge replacement and rehabilitation, the Department has begun preliminary engineering work which will lead to the replacement of 168 deficient bridges on the primary system over the next seven years.
- Planning and designing for the addition of one interchange per year on the interstate system will be done, as long as the need exists and federal funding continues for these projects.
- Planning and designing for one additional off-system local-road bridge replacement in

each Montana county to be contracted by 1991.

- Through Value Engineering and other concepts, the Department has planned a number of projects where lower standards, thinner pavements and other cost-saving techniques will be used to increase the number of miles of highways reconstructed or maintained from the existing highway dollar.
- Through strict adherence to and utilization of preconstruction and project scheduling management systems, the Department has met the ready dates on scheduled projects 91% of the time.
- The Department's program has resulted in the creation of an estimated 1800 private sector jobs in the construction and suppliers industries in Montana.

Another aspect of the highway program is the protection of already existing highway plant. In addition to the RTF program goal to preserve and maintain Montana's existing highway system, the Department's Gross Vehicle Weight program is also designed to protect the highways by enforcing the state's gross vehicle weight laws. The 1983 Legislature provided additional FTE and funds to expand the GVW program efforts in the area of concentrated enforcement and rover scale activities, as well as improved operations of the permanent scale stations. The legislature also amended the GVW statutes by reducing axle tolerances and making the tolerance applicable to axle weights as well as gross weights. As a result of the new statutes and the increased FTE, a significant increase in the number of overweight citations occurred in fiscal 1984. The significant increase in citations indicates that the expanded concentrated and mobile enforcement efforts, and the more restrictive tolerance, are proving to be effective and necessary for the protection of the state's roadways.

VIII - 1986-87 HIGHWAY PROGRAM

During the next biennium the Department expects to continue the high level of construction activity begun in fiscal 1984.

On the interstate the Department expects to let the last of the contracts in the fall of 1986 to close the interstate gaps. This last contract to close a 1.8 mile gap south of Dillon will be the "golden spike" on Montana's interstate system. The system will have required three decades and over \$1 billion to complete; it will stand as the largest single public works project ever carried out in Montana.

In addition to closing the interstate gaps, the Department also intends to add the Johnson Lane interchange on I-90 east of Billings in 1987 using a combination of interstate 4R funds and funds generated by a locally approved Urban Transportation District. This marks a new chapter in cooperation and joint commitment involving state and local governments in the highway program area.

Preliminary steps are being taken for the addition of an interchange to I-15 south of Helena. In that this interchange will be 100% funded by a developer, it does not count towards the one-per-year policy noted previously. While other states have had experience with developer-financed interchanges, this also represents a 'first' in Montana.

The primary system will continue to receive the added attention made possible by the RTF program. Approximately \$32 million a year in reconstruction is programmed in addition to the \$8 million a year in pavement preservation. The Department is proposing that 1,065 miles of state roads, known as "orphan plant," be added to the RTF program to properly preserve and maintain these off-system miles.

The secondary and urban systems will be continued at the current level of activity, provided that the current level of funding is continued from the federal government.

The Department will expand its activities in the bridge replacement and rehabilitation program. Due to the increased federal funding for bridges, the Department is requesting additional FTE in the budget for design, traffic and hydraulic activities.

For the 1986-87 biennium, the Department expects to either complete or put under contract a total of approximately \$300 million. This includes the completion of the interstate system and 297 miles of interstate 4R projects. On the primary system, the Department expects to contract for 72 miles of reconstruction, 71 miles of widening and overlay, and 328 miles of overlay, for a total of 471 miles. Further, the Department expects to contract for 121 miles of secondary and 50 on- and off-system bridges, in addition to the \$8 million a year of pavement preservation activity which is included in the total above.

1986-87 Budget

The Department's budget request for the 1986-87 biennium will reflect a combination of current level and significant expansion. Due to the significant increase in contract lettings during the current biennium, the Construction Management System indicates the construction program will require additional FTE for field project supervision and lab testing, and significant increases in contractor payments. The Department will also request additional FTE for the GVW program to staff the proposed new port-of-entry site at Saltese and a new permanent weigh station at Havre. The remainder of the Department's programs are being requested to be funded to maintain the current level of operations.

Selection of Projects

The Department designed and implemented a Project Selection System in 1983. Prior to that time, project selection was a highly arbitrary process with little regard given to priorities, cost analysis, or available funding. As part of the Department's efforts to design and implement various management systems, the Project Selection System was designed to provide the Department with a systematic and documented method of selecting and prioritizing highway construction projects.

The Department needed a selection system to develop a balanced, long-range construction program to reduce deficient mileage in the state and avoid over-programming.

The present system incorporates data in existing sufficiency ratings, a cost-effectiveness index, available federal apportionments by system, available state funds, pavement condition information, and financial district formulae. All of this is combined to provide a project selection and priority ranking process. The Project Selection System serves as a basis for the Department's recommendations to the Highway Commission and the Commission's decisions on selection and prioritization.

1986-87 Projects

The following pages represent the Commission's and Department's 1986-87 Highway Program, displayed by Financial District and type of project. It is important to note that the project lists may change if federal or state funding levels change, or if other unexpected problems occur.

Not included in the project lists are various statewide projects for sign restoration and rest area rehabilitation. Projects in each of these two categories total less than \$1 million for the biennium.

Also not included are small safety and railway-highway crossing projects and direct federal funded projects under the Forest Highway and Public Lands categories.

The \$8 million a year pavement preservation projects funded from the Reconstruction Trust Fund are presented on the Districts' project lists as estimates only. The actual amounts of these relatively small seal and cover projects are determined on an annual basis. The amount of funds distributed to each district is based on the number of primary route miles contained within each district as a percentage of the total primary route miles in the state.

THE 1986-87 HIGHWAY PROGRAM

Project Lists and locations

**Table 13
Project List
Financial District 1**

Map No.	System Desig.	Route No.	Location	FY	Miles	Cost (\$ million)	Scope of Work
1.	Int.	I-90	St. Regis — E & W	1986	7.0	\$9.3	Second Stage Surfacing for concrete pavement construction on existing temporary bituminous base pavement.
2.	Pri.	MT 200	Rainbow Bend — W	1986	2.0	1.3	Reconstruction to correct a deteriorating narrow roadway and improve alignment.
3.	Pri.	US 2	Kila — E & W	1986	12.4	1.5	Resurface and safety improvements to reduce hazards and high maintenance costs.
4.	Pri.	MT 83	Seeley — Inez Lakes	1986	8.3	1.7	Resurface existing pavement to protect structural integrity and extend service life.
5.	Pri.	US 93	Post Creek — Ronan	1987	8.4	1.0	Resurface existing pavement to protect structural integrity and extend service life.
6.	Pri.	US 93	Flathead Co. Line — S	1987	7.5	7.5	Reconstruction and widening to replace a deteriorated narrow 2-lane roadway with wider 2-lane.
7.	Pri.	US 2	Marion — W	1987	9.8	1.5	Resurface existing pavement to protect structural integrity and extend service life.
8.	Pri.	MT 200	Plains — Paradise	1987	5.1	2.8	Reconstruction and widening to replace a deteriorated narrow 2-lane roadway with wider 2-lane.
9.	Pri.	US 2	Libby — SE	1987	6.5	1.0	Resurface existing pavement to protect structural integrity and extend service life.
10.	Pri.	MT 200	Potomac — W	1987	7.2	5.8	Reconstruction to correct a deteriorating narrow roadway and improve alignment.
11.	Pri.	MT 52 & 82	Big Fork — S & W	1987	16.9	3.6	Resurface existing pavement to protect structural integrity and extend service life, and provide turn bays at intersections.
12.	Pri.	MT 83	Big Fork — E	1987	8.4	1.1	Resurface existing pavement to protect structural integrity and extend service life.
13.	Pri.	MT 200	Clearwater Jct. — E	1987	11.0	2.4	Resurface and widen existing pavement to extend service life and provide for safer movement of traffic.
14.	Sec.	S 263	Mullan Road	1987	3.3	1.6	Reconstruction to replace older and narrow road.
15.	Bridge	US 93	Bitterroot Br. — South of Darby	1986	---	1.4	Replace structurally deficient bridge.
16.	Bridge	Off-Sys	Harpers Br — W of Missoula	1986	---	1.2	Replace county bridge over Clark Fork River currently closed to vehicular traffic.
17.	Bridge	MT 200	Potomac — W	1987	---	1.4	Replace structurally deficient bridge over the Blackfoot River.
18.	GVW	I-90	Saltese	1987	---	1.3	Construct new joint port-of-entry weigh station.
Projects less than \$1 million (18)					5.5	6.5	Various interstate 4R, primary and bridge projects designed to improve safety and service life.
Pavement preservation					66.0	1.5	Various minor seal and cover projects.



FIGURE 14
HIGHWAY PROGRAM
FINANCIAL DISTRICT 1

Table 14
Project List
Financial District 2

Map No.	System Desig.	Route No.	Location	FY	Miles	Cost (\$ million)	Scope of Work
1.	Int.	I-15	Pipe Organ — N (South Section)	1987	4.4	\$8.3	Construction of additional 2-lanes to complete this section of I-15 to full 4-lane interstate standards.
2.	Int. 4R	I-15	Lima — Red Rock	1986	20.8	7.3	Resurface existing pavement to protect structural integrity and extend service life.
3.	Int. 4R	I-15/90	Buxton Int — N & E	1986	8.6	2.6	Resurface existing pavement to protect structural integrity and extend service life.
4.	Int. 4R	I-15	Butte — W & S	1986	14.3	4.4	Rehabilitation of concrete pavement to restore structural integrity, extend service life, and reduce maintenance costs.
5.	Int. 4R	I-15	Red Rock Int — N	1987	13.1	2.3	Resurface existing pavement to protect structural integrity and extend service life.
6.	Int. 4R	I-90	Whitehall — W	1987	10.0	3.4	Resurface existing pavement to protect structural integrity and extend service life.
7.	Pri.	MT 85	Jackrabbit Lane	1986	6.7	1.4	Resurface and widen existing roadway to provide a smoother riding surface and for a more safe movement of traffic.
8.	Pri.	US 20	W. Yellowstone — W	1986	9.3	1.5	Rehabilitate and Resurface existing roadway to restore structural integrity, extend service life, and reduce maintenance costs.
9.	Pri.	US 287	Norris Hill	1986	9.0	6.2	Reconstruction to replace existing 2-lane with wider 2-lane with improved alignment.
10.	Pri.	US 191	Grayling Cr — N	1986	10.0	1.3	Resurface existing pavement to extend service life and reduce maintenance costs.
11.	Pri.	US 191	Specimen Cr — N & S	1986	11.2	1.4	Resurface existing pavement to extend service life and reduce maintenance costs.
12.	Pri.	MT 69	Boulder — Whitehall	1987	12.0	2.5	Resurface existing pavement to extend service life and reduce maintenance costs.
13.	Pri.	MT 55	Whitehall — S	1987	12.1	1.0	Resurface existing pavement and provide spot safety improvements to extend service life and reduce maintenance costs.
14.	Pri.	US 287	Three Forks — N	1987	9.0	1.9	Resurface and widen existing roadway to improve safety, extend service life, and reduce maintenance costs.
15.	Pri.	US 10A	W. of Anaconda — W	1987	7.8	1.1	Resurface and widen existing pavement to extend service life and reduce maintenance costs.
16.	Pri.	US 191	Big Sky Jct. — N	1987	7.5	1.5	Resurface existing pavement and provide spot safety improvements to extend service life and a more safe movement of traffic.
17.	Urb.	---	Livingston — Main, Chinook and Gallatin	1986	2.2	1.2	Reconstruction including storm drainage and additional signing to improve deteriorating urban system streets.
18.	Bridge	US 12	Missouri River Br — Townsend	1986	---	2.0	Rehabilitate and widen bridge and approaches to restore structural integrity and provide for a more safe movement of traffic.
Projects less than \$1 million (15)					19.8	4.3	Various interstate 4R, primary, secondary, urban and bridge projects designed to improve safety, extend service life, and replace deficient structures.
Pavement preservation					66.0	1.5	Various minor seal and cover projects.

**FIGURE 15
HIGHWAY PROGRAM
FINANCIAL DISTRICT 2**

Legend

-  Interstate
-  Primary
-  Secondary
-  District Boundary
-  Highway Project
-  Bridge Project



Table 15
Project List
Financial District 3

Map No.	System Desig.	Route No.	Location	FY	Miles	Cost (\$ million)	Scope of Work
1.	Int. 4R	I-15	Great Falls — Vaughn	1986	8.7	\$2.7	Resurface and Rehabilitate existing roadway to restore structural integrity, extend service life, and provide a smoother driving surface.
2.	Int. 4R	I-15	Dutton — N & S	1986	12.8	4.5	Resurface existing pavement to protect structural integrity and extend service life.
3.	Int. 4R	I-15	Shelby — N	1987	23.9	5.8	Resurface existing pavement to protect structural integrity and extend service life.
4.	Pri.	US 87	Box Elder — Havre	1986	13.5	4.8	Resurface and widen existing roadway to extend service life and provide a more safe movement of traffic.
5.	Pri.	US 12	Helena — W	1986	1.3	1.4	Reconstruction to replace a narrow 2-lane roadway with 4-lane for a more safe movement of traffic.
6.	Pri.	MT 200	Belt — E	1986	9.6	1.5	Resurface existing pavement to protect structural integrity and extend service life.
7.	Pri.	US 87	Great Falls — N	1986	16.5	2.0	Resurface existing pavement to protect structural integrity and extend service life.
8.	Pri.	US 89	Sun River Jct. — N	1986	10.0	1.4	Resurface existing pavement to protect structural integrity and extend service life.
9.	Pri.	MT 200	Great Falls — E	1987	8.9	5.1	Reconstruction to replace a 2-lane roadway with 4-lane and wider 2-lane for a more safe movement of traffic.
10.	Pri.	US 12	Helena — W	1987	4.9	3.8	Reconstruction to replace a narrow 2-lane roadway with 4-lane for a more safe movement of traffic.
11.	Sec.	S 236	South of Big Sandy	1986	12.0	2.5	Reconstruction and realignment of existing gravel surfaced road for a more safe movement of traffic.
12.	Sec.	S 330	Ulm — S	1987	5.3	2.3	Reconstruction and improved alignment of existing 2-lane roadway for a more safe movement of traffic.
13.	Sec.	S 338	N. of Harlem	1987	7.0	1.1	Resurface to provide paved surface on existing gravel surfaced road.
14.	Sec.	S 464	N. of Browning — NW	1987	5.9	3.0	Reconstruction and improved alignment to provide paved surface on existing gravel surfaced road.
15.	Sec.	S 552	Sunburst — E	1987	13.0	1.3	Resurface to provide paved surface on existing gravel surfaced road.
16.	Urb.	----	Great Falls — 6th St. SW	1986	0.8	4.6	Reconstruction including storm drainage and additional signing to improve an urban system street.
17.	Bridge	US 87	Marias River Br	1987	----	2.6	Replace and realign existing narrow bridge over railroad and Marias River near Loma.
Projects less than \$1 million (16)					13.0	6.1	Various primary, secondary, urban and bridge projects designed to replace deficient structures, improve safety and overlay existing rural roads.
Pavement preservation					66.0	1.5	Various minor seal and cover projects.

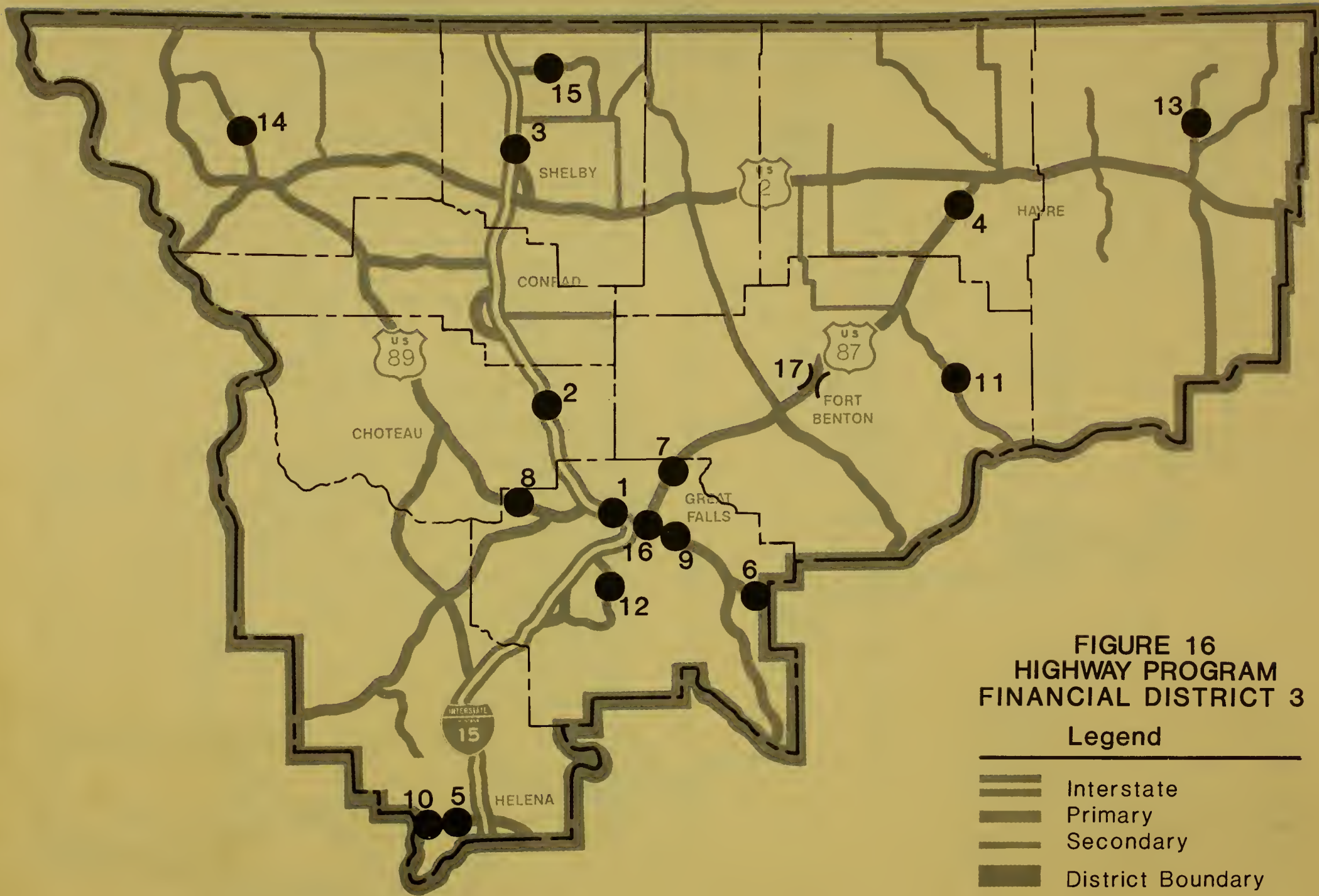


Table 16
Project List
Financial District 4

Map No.	System Desig.	Route No.	Location	FY	Miles	Cost (\$ million)	Scope of Work
1.	Int. 4R	I-94	Rosebud Co — E	1986	7.2	\$2.5	Resurface existing pavement to protect structural integrity and extend service life.
2.	Int. 4R	I-94	Terry — E	1986	6.5	2.3	Resurface existing pavement to protect structural integrity and extend service life.
3.	Int. 4R	I-94	Rosebud Int — E & W	1987	11.3	4.0	Resurface existing pavement to protect structural integrity and extend service life.
4.	Int. 4R	I-94	Miles City — W	1987	9.1	1.6	Resurface existing pavement to protect structural integrity and extend service life.
5.	Int. 4R	I-94	Glendive — E	1987	17.6	3.7	Resurface existing pavement to protect structural integrity and extend service life.
6.	Int. 4R	I-94	Wibaux — E & W	1987	15.2	3.8	Resurface existing pavement to protect structural integrity and extend service life.
7.	Pri.	MT 59	Miles City — S	1986	5.7	3.2	Resurface and Widen existing pavement to extend service life and provide more safe movement of traffic.
8.	Pri.	MT 59	5 Mi. S of Miles City — S	1986	5.0	2.6	Resurface and Widen existing pavement to extend service life and provide more safe movement of traffic.
9.	Pri.	MT 16	Antelope — N & S	1986	5.4	3.5	Reconstruction, widen, and improve alignment of existing 2-lane to widened 2-lane road.
10.	Pri.	MT 23	Sidney Br — E	1986	5.1	3.6	Reconstruction, widen, and improve alignment of existing 2-lane to widened 2-lane road.
11.	Pri.	MT 22	Miles City — NW	1986	7.5	1.1	Resurface existing pavement to restore structural integrity, extend service life, and reduce maintenance costs.
12.	Pri.	MT 24	Flowing Wells — N	1986	19.7	3.5	Resurface existing pavement to restore structural integrity, extend service life, and reduce maintenance costs.
13.	Pri.	US 12	Fallon Co — E & W	1986	25.0	5.0	Resurface existing pavement to restore structural integrity, extend service life, and reduce maintenance costs.
14.	Pri.	MT 39	Lame Deer — N	1986	9.7	1.0	Resurface existing pavement to restore structural integrity, extend service life, and reduce maintenance costs.
15.	Pri.	US 2	Saco — E	1986	8.8	1.0	Resurface existing pavement to restore structural integrity, extend service life, and reduce maintenance costs.
16.	Pri.	MT 13	Scobey — S	1987	5.5	1.4	Resurface, widen, and partial reconstruction to improve grade and alignment.
17.	Pri.	MT 13	6 Mi. S of Scobey — S	1987	6.0	1.4	Resurface, widen, and partial reconstruction to improve grade and alignment.
18.	Pri.	MT 13	Circle — N	1987	8.5	3.4	Resurface and widen existing pavement to restore structural integrity, extend service life, and provide more safe movement of traffic.
19.	Pri.	MT 200S	Circle — E	1987	16.0	1.4	Resurface existing pavement to restore structural integrity, extend service life, and reduce maintenance costs.
20.	Pri.	US 212	Ashland — E	1987	7.8	1.6	Resurface existing pavement to restore structural integrity, extend service life, and reduce maintenance costs.
21.	Pri.	US 2	Nashua — W	1987	8.2	1.0	Resurface existing pavement to restore structural integrity, extend service life, and reduce maintenance costs.
22.	Sec.	S 251	Daniels Co — N & S	1987	6.8	1.0	Resurface and widen to provide paved surface on existing gravel surfaced road.
23.	Sec.	S 438	N. of Nashua — N	1987	3.8	1.2	Reconstruction, improve grade and alignment to replace gravel surfaced road with paved road.
24.	Bridge	MT 16	Missouri River Br — S. of Culbertson	1986	—	3.8	Replace existing deficient steel truss bridge.
Projects less than \$1 million (18)					33.9	5.6	Various primary, secondary, urban and bridge projects designed to replace deficient bridges, resurface certain roads, and improve storm drainage on urban routes.
Pavement preservation					88.0	2.0	Various minor seal and cover projects.

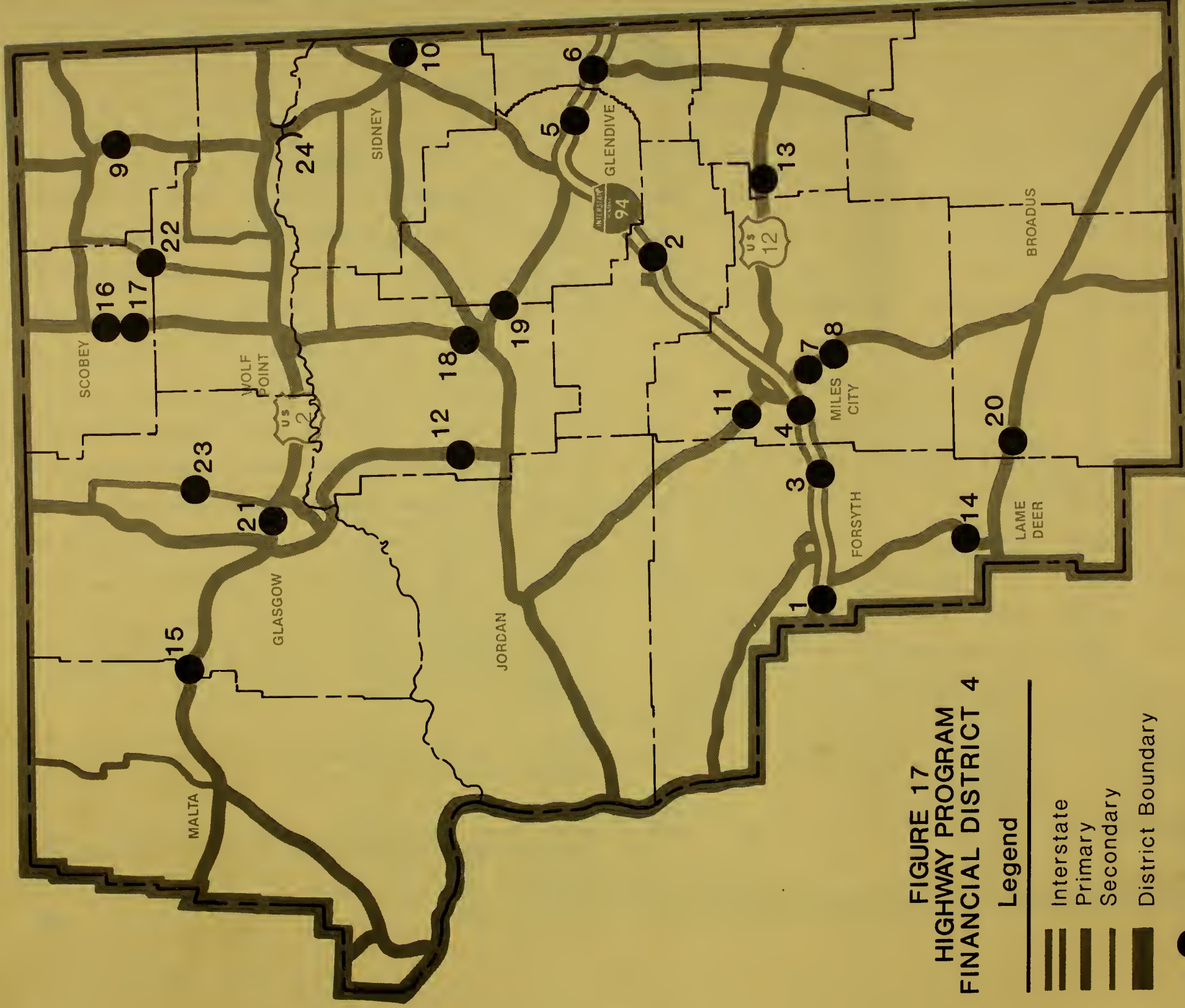


FIGURE 17
HIGHWAY PROGRAM
FINANCIAL DISTRICT 4

- Legend**
- Interstate
 - Primary
 - Secondary
 - District Boundary
 - Highway Project
 - Bridge Project

Table 17
Project List
Financial District 5

Map No.	System Desig.	Route No.	Location	FY	Miles	Cost (\$ million)	Scope of Work
1.	Int. 4R	I-90	Columbus — E & W	1986	29.0	\$5.2	Resurface existing pavement to protect structural integrity and extend service life.
2.	Int. 4R	I-90	Laurel — E & W	1986	19.4	4.7	Resurface existing pavement to protect structural integrity and extend service life.
3.	Int. 4R	I-94	Pinehill Int — E	1986	6.9	2.8	Resurface existing pavement to protect structural integrity and extend service life.
4.	Int. 4R	I-90	Springtime Int — W	1987	7.6	1.5	Resurface existing pavement to protect structural integrity and extend service life.
5.	Int. 4R	I-90	Johnson Lane Int	1987	---	1.2	Construct interchange ramps at existing underpass to provide new interstate access and more safe movement of traffic.
6.	Int. 4R	I-94	Huntley Int — Pompeys Pillar Int	1987	16.0	3.2	Resurface existing pavement to protect structural integrity and extend service life.
7.	Int. 4R	I-94	Custer Int — E	1987	13.9	2.4	Resurface existing pavement to protect structural integrity and extend service life.
8.	Int. 4R	I-94	Hysham — E & W	1987	17.3	6.1	Resurface existing pavement to protect structural integrity and extend service life.
9.	Pri.	US 87	Klein — S	1986	16.7	3.3	Resurface existing pavement to protect structural integrity, extend service life, and reduce maintenance costs.
10.	Pri.	US 310	Laurel — E, Mossmain	1986	3.5	1.0	Resurface existing pavement to protect structural integrity, extend service life, and reduce maintenance costs.
11.	Pri.	US 12	Ryegate — E	1987	7.1	6.8	Reconstruction, widen and improve grade and alignment to replace existing 2-lane with wider 2-lane road.
12.	Pri.	US 310	Bridger — Fromberg	1987	7.5	4.7	Reconstruction and widen to replace existing 2-lane with wider 2-lane road and provide more safe movement of traffic.
13.	Sec.	S 308	E. of Bear Cr — Belfry	1987	5.4	1.2	Resurface, widen and rehabilitate existing 2-lane road to extend service life and reduce maintenance costs.
14.	Urb	---	Billings — State Ave. — 1st Ave S to 27th St.	1987	1.5	1.7	Reconstruction to upgrade urban system street.
15.	Urb	---	Billings — Hilltop Ext.	1987	0.6	1.1	Construction to extend urban route on new alignment.
16.	Bridge	---	Billings — Mt Ave OP	1986	---	2.0	Replace existing deteriorating bridge deck.
17.	Bridge	---	Sweetgrass Co — 1 Mi. SE of Greycliff—Yellowstone River Br	1987	---	1.1	Replace existing deficient county bridge.
Projects less than \$1 million (13)					14.7	4.7	Various primary, secondary, urban and bridge projects designed to correct slide areas, install signals, replace deficient bridges, and reconstruct/resurface existing roads.
Pavement preservation					66.0	1.5	Various minor seal and cover projects.

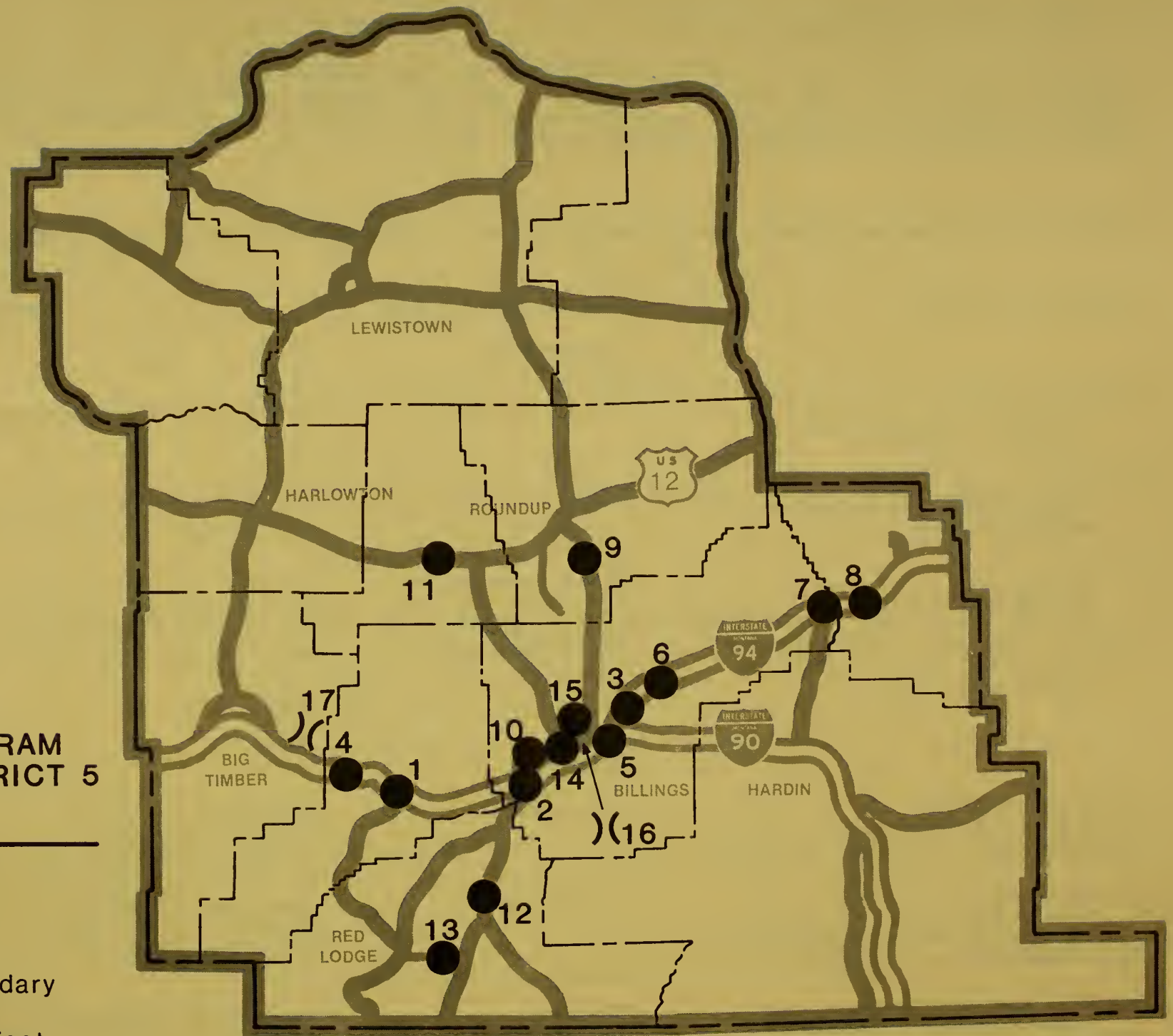
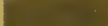


FIGURE 18
HIGHWAY PROGRAM
FINANCIAL DISTRICT 5

Legend

-  Interstate
-  Primary
-  Secondary
-  District Boundary
-  Highway Project
-  Bridge Project

IX - PROJECT EXCEPTION REPORT

Pursuant to House Bill 447, the following represents the Department's Project Exception Report. House Bill 447 required that the Department report to the "1985 Legislature any significant deviation in projects undertaken or funds expended from that work plan." This report lists, with explanations, those projects that were delayed, added or dropped from the 1984 work plan. Project exceptions during fiscal 1985 will be reported during the 49th Legislative session.

Projects which had been scheduled for State FY 1984 in the February 1983 Legislative Book but were dropped from the program or delayed.

ROUTE AND LOCATION	TYPE OF CONSTRUCTION	REMARKS
<u>INTERSTATE 4R</u>		
I-15, Wolf Creek — N. Structure — 4 miles south of Lewis & Clark/Cascade County line	Expansion Joint Repair	Dropped from program - joints did not warrant replacement.
I-90, Superior — Deer Lodge Various structures located in Mineral and Powell counties	Expansion Joint Repair	Built by change order on another project.
I-15, Butte-West Structure just west of Butte	Expansion Joint Repair	Dropped from program - joints did not warrant replacement.
I-90, East of Reed Point — Crow Agency Structures east of the Sweetgrass/Stillwater County lines	Expansion Joint Repair	Repair work done under previous contract.
<u>PRIMARY</u>		
U.S. 2, Coram-West Glacier Begins near Coram and extends northeast terminating at West Glacier	G, GS, PMS	Delayed because of litigation over EIS. The litigation problem has now been resolved and this project is scheduled to be let to contract in February, 1985, along with the Hungry Horse - Coram project.
MT 200, Bowman's Corner — N.E. Begins at Bowman's Corner and extends northeast, terminating approximately at the Cascade/Lewis & Clark County lines	Widen, Resurface	Delayed because of environmental issues and right-of-way problems. Scheduled to be let in fiscal 1985. (Shown in fiscal 84-85 work plan as Rogers Pass-East, F.D. No. 7.)
U.S. 87, 5 Miles East of Lewistown — E. Begins approximately 5 miles east of Lewistown and extends east to a point approximately 14 miles east of Lewistown	PMS Overlay, Curve Realignment	Delayed because additional work was added at request of local citizens. This project is now scheduled for a March, 1985 contract letting.

ROUTE AND LOCATION	TYPE OF CONSTRUCTION	REMARKS
<u>SECONDARY</u>		
RT 330, Ulm-South (North Section) Begins just south of Ulm and extends southeast to a point 6.5 miles southeast of Ulm	G, GS, PMS	Delayed because of right-of-way condemnation lawsuit. Project is now scheduled for letting in February, 1985.
RT 308, Red Lodge-East (Bearcreek Section) Begins approximately at Bearcreek and extends east to a point approximately 2 miles east of Bearcreek	G, GS, PMS	Delayed to tie for contract with Bearcreek-Belfry section per county request. These projects are currently scheduled to be let to contract in May, 1987.
<u>BRIDGE</u>		
MT 16, Savage-Crane Structure crossing over USRS Canal, approximately 1 mile from Savage	Bridge over USRS Canal	Delayed because of problems with right-of-way plans being completed late. Project was let to contract in August, 1984.
Urban RT 5710 - Havre Structure crossing over BN tracks within the urban limits of Havre	Structure Rehab.	Bids were rejected on this project in June, 1984 because of DBE problems. Project was readvertised and let in July, 1984.

Projects that were advanced into State FY 1984 (were not included in February 1983 Legislative Book for FY 1984).

<u>INTERSTATE</u>		
I-90, Wyola-South Begins near the proposed Wyola Interchange and extends southerly for approximately 5.8 miles	G, GS, PMS, Structure	Let 8/83. Interstate Discretionary funds received for this project.
I-90, Lodge Grass-South Begins approximately 1 mile south of Lodge Grass and extends south terminating where the Wyola South project begins.	G, GS, PMS, Structures	Let 9/83. Interstate Discretionary funds received for this project. Had been in FY 85 Legislative Book.
I-90, St. Regis-East & West St. Regis River and Clark Fork structure in St. Regis	Structure Rehab.	Let 6/84. Accelerated because of serious deterioration of bridge decks.

ROUTE AND LOCATION	TYPE OF CONSTRUCTION	REMARKS
<u>INTERSTATE 4R</u>		
I-15, Jefferson City — N. & S. Begins south of the Jefferson City Interchange and extends north to a point just past the Montana City Interchange	PMS Overlay	Let 2/84. This project was advanced into FY 84 to replace the Clinton — E. & W. Interstate resurfacing project for which we obtained additional federal obligation authority at the end of federal FY 83. This project was in state FY 85 in the Legislative Book.
<u>PRIMARY</u>		
U.S. 212, Crow Agency-Busby (W. Section) Begins at the junction with I-90 and extends east to a point approximately 8 miles east of Crow Agency	G, GS, PMS	Let 6/84. Advanced to FY 84 because of receipt of \$4.5 million of Public Lands Funds.
U.S. 212, Beartooth Pass Project begins approximately 3 miles from the Montana-Wyoming border and extends down Beartooth Pass replacing guardrail at various locations.	Guardrail	Let 9/83. Advanced to FY 84 because of receipt of Forest Highway funds for project.
MT 74, Wyola I Connection From a point on future FAI RT 90 westerly to a point on present road near Wyola	G, GS, PMS	Let 8/83. Tied to Wyola-South interstate project.
<u>SECONDARY</u>		
RT 236, Winifred-PN Road Begins approximately 7 miles northwest of Winifred and extends northwest to a point near the new Missouri River Bridge	GS	Let 6/84. Accelerated per request of county.
RT 484, Fort Howe — North Begins approximately 10 miles south of junction with U.S. 212 east of Ashland and extends southerly for approximately 9.8 miles	PMS	Let 10/83. Forest Highway funds obtained for this section which was tied to Ashland-Otter Creek Secondary project.
<u>URBAN</u>		
RT 1002, Rimrock Road — Billings Begin on north 27th Street and extends along Rimrock Road to Virginia Lane	G, GS, PMS	Let 10/83. Accelerated per request of city.

ROUTE AND LOCATION	TYPE OF CONSTRUCTION	REMARKS
<u>BRIDGE</u>		
MT 71, Rattlesnake Creek — Missoula Structure just southwest of the VanBuren Interchange within the urban limits of Missoula.	Bridge Deck Replacement	Let 4/84. Accelerated due to bridge deck deterioration.
U.S. 89, Warden Bridge — Great Falls Structure crossing the Missouri River on 10th Avenue South in Great Falls	Bridge Deck Rehab.	Let 9/83. Added to FY 84 program because of savings resulting from main bridge contract and because of deterioration of bridge deck.
Off-system, Hill County Structure crossing the Bull Hook Flood Canal approximately 1 mile southeast of Havre on the Clear Creek Road	Bridges & Approaches	Let 6/84. Added to FY 84 program at request of county. The old bridge had been removed by the county due to its poor condition and the road was closed to traffic.

The following projects were let to contract in State FY 1984. They were not included in the February 1983 Legislative Book. At the time this was prepared, these projects were scheduled for 6/83 letting but were delayed into FY 84.

<u>SECONDARY</u>		
RT 438, Nashua — North Begins 21 miles north of Nashua and extends north to a point approximately 25 miles north of Nashua	G, GS, PMS	Project was let in 6/83. Bids were rejected and project was readvertised and let to contract in August, 1983.
<u>URBAN</u>		
RT 1212, Kagy Boulevard — Bozeman On Kagy Blvd. between Highland Blvd. and Willson Avenue within urban limits of Bozeman	G, GS, PMS	Let 9/83. Project was delayed because of problems with utility relocations.
RT 8116, Mount Avenue — Missoula Three intersections on Mount Ave. — Mount, Brooks and Addison; Mount, Stephens and Knowles; Mount, Russell and S. 14th St.	Intersection Improvements	Let 9/83. Project was delayed because of right-of-way problems.

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